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Access DB# 78768

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Camie S. Thompson Examiner #: 79244 Date: 10/25/02
 Art Unit: 177 Phone Number 305 4458 Serial Number: 09/943 578
 Mail Box and Bldg/Room Location: CP3/11/8/28 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Novel Styryl Compound
 Inventors (please provide full names): Masokazu Funahoshi; Hiromasa Arai;
Chishio Hosokawa
 Earliest Priority Filing Date: 09/01/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for the styryl compounds found in
 Claims 1 + 2 (attached) found in an electro-
 luminescence device.

Please do a CAS search as well.

BEST AVAILABLE COPY

Thank you

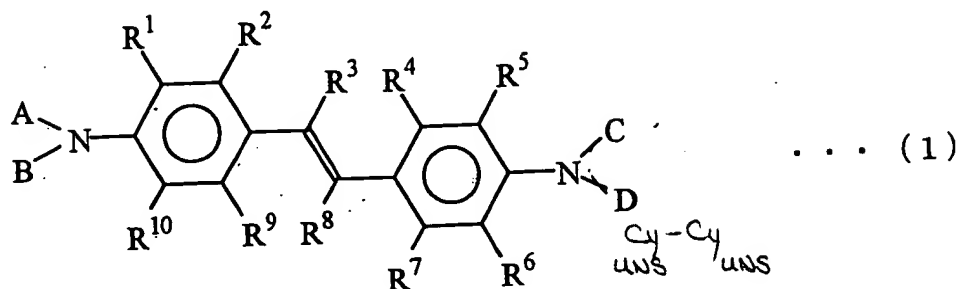
(closest art first)

STAFF USE ONLY

Searcher	Type of Search	Vendors and cost where applicable
Searcher: <u>Ed</u>	NA Sequence (#) _____	STN <u>\$199.46</u>
Searcher Phone: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>(2) (subject)</u>	Quest/Orbit _____
Date Searcher Picked Up: _____	Bibliographic <u>(2) (subject)</u>	DLINK _____
Date Completed: <u>10-31-02</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>5</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>60</u>	Other _____	Other (specify) _____

WHAT IS CLAIMED IS:

1. A novel styryl compound represented by the following general formula (1):



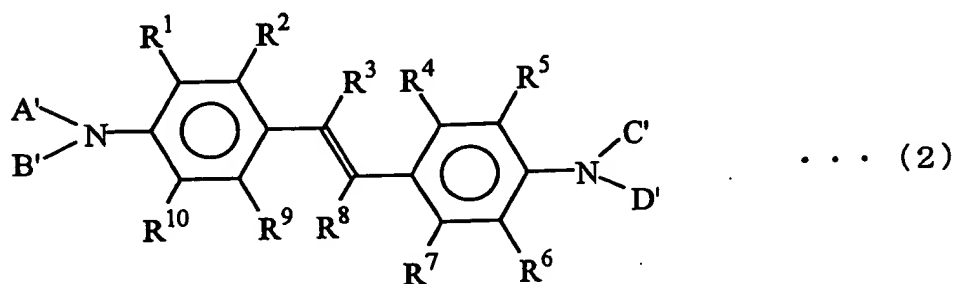
wherein R^1 to R^{10} each independently represent hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 30 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 30 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aryloxy group having 6 to 18 carbon atoms, a substituted or unsubstituted condensed polycyclic group having 6 to 30 carbon atoms, a substituted or unsubstituted heterocyclic group having 5 to 30 carbon atoms, amino group, an alkylamino group having 2 to 30 carbon atoms, an arylamino group having 6 to 30 carbon atoms, cyano group, nitro group, hydroxyl group or a halogen atom, and adjacent groups among groups represented by R^1 to R^{10} may be bonded to each other and form a saturated or unsaturated carbon ring; and

A, B, C and D each independently represent a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms or a substituted or unsubstituted aryl group having 6 to 40 carbon atoms, and at least two of A, B, C and D each represent a group represented by $-\text{Ar}^1-\text{Ar}^2$, Ar^1

2m49 column 27.

representing a substituted or unsubstituted phenylene group or naphthalene group and Ar² representing a substituted or unsubstituted aryl group having 6 to 34 carbon atoms, excluding a case in which A and C represent biphenyl group and B and D represent phenyl group.

2. A novel styryl compound represented by the following general formula (2):



wherein R¹ to R¹⁰ each independently represent hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 30 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 30 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aryloxy group having 6 to 18 carbon atoms, a substituted or unsubstituted condensed polycyclic group having 6 to 30 carbon atoms, a substituted or unsubstituted heterocyclic group having 5 to 30 carbon atoms, amino group, an alkylamino group having 2 to 30 carbon atoms, an arylamino group having 6 to 30 carbon atoms, cyano group, nitro group, hydroxyl group or a halogen atom, and adjacent groups among groups represented by R¹ to R¹⁰ may be bonded to each other and form a saturated or unsaturated carbon ring; and

A', B', C' and D' each independently represent a substituted or

unsubstituted alkyl group having 1 to 20 carbon atoms or a substituted or unsubstituted aryl group having 6 to 40 carbon atoms, and A' and C' each represent a substituted or unsubstituted condensed hydrocarbon group having 2 to 5 rings.

3. An electroluminescence device comprising a pair of electrodes and a film of organic compounds which is disposed between the pair of electrodes and comprises a single layer or a plurality of layers comprising at least a light emitting layer, wherein at least one of the layers of the film of organic compounds comprises a novel styryl compound described in Claim 1.

4. An electroluminescence device comprising a pair of electrodes and a film of organic compounds which is disposed between the pair of electrodes and comprises a single layer or a plurality of layers comprising at least a light emitting layer, wherein at least one of the layers of the film of organic compounds comprises a novel styryl compound described in Claim 2.

5. An electroluminescence device comprising a pair of electrodes and a film of organic compounds which is disposed between the pair of electrodes and comprises a single layer or a plurality of layers comprising at least a light emitting layer, wherein the light emitting layer comprises a novel styryl compound described in Claim 1.

6. An electroluminescence device comprising a pair of electrodes and a film of organic compounds which is disposed between the pair of electrodes and comprises a single layer or a plurality of layers comprising at least a

light emitting layer, wherein the light emitting layer comprises a novel styryl compound described in Claim 2.

7. An electroluminescence device comprising a pair of electrodes and a film of organic compounds which is disposed between the pair of electrodes and comprises a single layer or a plurality of layers comprising at least a light emitting layer, wherein an electron injecting layer or a hole injecting layer comprises a novel styryl compound described in Claim 1.

8. An electroluminescence device comprising a pair of electrodes and a film of organic compounds which is disposed between the pair of electrodes and comprises a single layer or a plurality of layers comprising at least a light emitting layer, wherein an electron injecting layer or a hole injecting layer comprises a novel styryl compound described in Claim 2.

9. An electroluminescence device according to Claim 5, wherein a layer of an inorganic compound is disposed between the light emitting layer and the electrode.

10. An electroluminescence device according to Claim 6, wherein a layer of an inorganic compound is disposed between the light emitting layer and the electrode.

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L1 FILE 'LREGISTRY' ENTERED AT 16:10:37 ON 31 OCT 2002
 STR

L2 FILE 'REGISTRY' ENTERED AT 16:21:01 ON 31 OCT 2002
 1 S L1
 L3 143 S L1 FUL
 SAV L3 THO578/A

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 STR L1

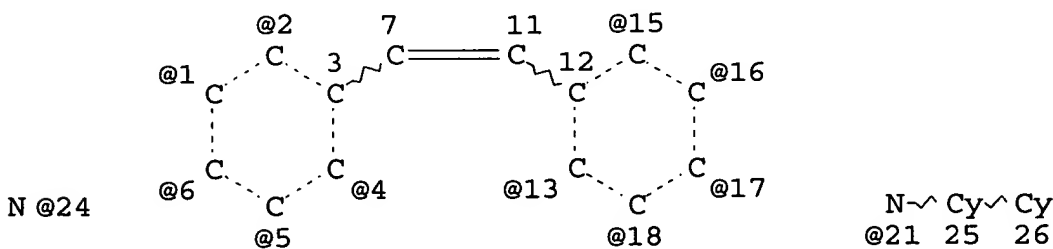
L5 FILE 'REGISTRY' ENTERED AT 16:28:48 ON 31 OCT 2002
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 L6 8 S L4 SSS FUL SUB=L3
 SAV L6 THO578A/A
 L7 135 S L3 NOT L6

L8 FILE 'HCA' ENTERED AT 16:32:59 ON 31 OCT 2002
 76 S L7
 L9 5 S L6
 L10 72256 S EL OR E(W)L OR ORGANOLUM!N? OR ELECTROLUM!N? OR (ORG# O
 L11 4 S L8 AND L10
 L12 72 S L8 NOT L11
 L13 3 S L9 AND L10
 L14 5 S L9 OR L13

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L1 STR



VPA 24-2/1/6/5/4 U
 VPA 21-15/16/17/18/13 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 25

GGCAT IS UNS AT 26

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L3 143 SEA FILE=REGISTRY SSS FUL L1

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143 ANSWERS

SEARCH TIME: 00.00.09

=> file hca

FILE 'HCA' ENTERED AT 16:58:20 ON 31 OCT 2002

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L11 ANSWER 1 OF 4 HCA COPYRIGHT 2002 ACS

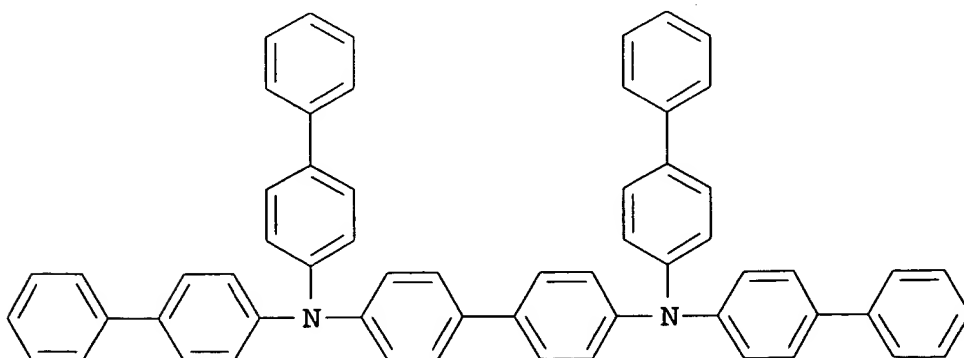
137:262855 Method for producing aromatic amino compound by arylation reaction of amines with aryl halides promoted by noble metals.

Iwakuma, Toshihiro; Moriwaki, Fumio (Idemitsu Kosan Co., Ltd., Japan). PCT Int. Appl. WO 2002076922 A1 20021003, 30 pp.

DESIGNATED STATES: W: CN, IN, JP, KR, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (Japanese).

CODEN: PIXXD2. APPLICATION: WO 2002-JP2132 20020307. PRIORITY: JP 2001-76302 20010316.

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II

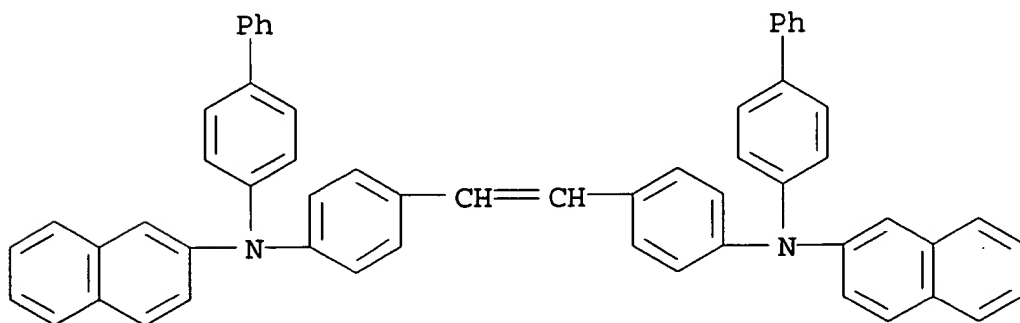
AB Claimed is a method for producing an arom. amino compd. represented by the general formula Ar1-N(Ar2)-H (wherein Ar1 and Ar2 are each a substituted or non-substituted hydrocarbon group having 2 to 50 carbon atoms or a heterocyclic group), which comprises reacting an amino compd. represented by the general formula H2N-R1 (wherein R1 is a substituent having 2 to 50 carbon atoms) with a aryl halide mixt. represented by the general formula Ar1-X and Ar2-X (wherein Ar1 and Ar2 are as defined above and X is a halogen) in the presence of a noble metal catalyst, to synthesize an arom. amino compd. intermediate represented by the general formula Ar1-N(Ar1)-R1 , and removing the substituent R1 of this compd. The method can be employed for producing an arom. amino compd. in high yield with good efficiency, without the use of a highly toxic raw material such as .beta.-naphthylamine, 4-aminodiphenyl, or benzidine which is designated as a special chem. and whose prodn. is banned in Japan. Arom. amino compds. are useful as elec. charge transporting materials for electrophotog. photoreceptors and org. **electroluminescence** devices. Thus, 60 mL dry toluene, 2.04 mmol benzylamine, and a toluene soln. of tris(tert-butyl)phosphine (2.22 M, 169 .mu.L, 0.374 mmol) were added to 10.0 g 4-bromobiphenyl, 4.32 g potassium tert-butoxide, and 42.0 mg Pd(OAc)_2 under Ar and stirred at room temp. for 15 min and 120.degree. for 7.5 h to give 87% N,N-di(4-biphenyl)benzylamine which (1.35 g) was hydrogenolyzed over 135 mg 10% Pd-C in a mixt. of 100 mL CHCl_3 and 20 mL ethanol under vigorous stirring at room temp. for 30 h to give 94% di(4-biphenyl)amine (I). Dry toluene (10 mL) and a toluene soln. of tris(tert-butyl)phosphine (2.22 M, 13.4 .mu.L, 0.0296 mmol) were added to 500 mg I, 231 mg 4,4'-dibromobiphenyl, 157 mg potassium tert-butoxide, and 3.4 mg Pd(OAc)_2 under Ar and gradually heated to 115.degree. with stirring and stirred at 115.degree. for 6 h to give 77% N,N,N',N'-tetra(4-biphenyl)benzidine (II).

IT 462631-36-3P

(method for producing arom. amino compds. as elec. charge transporting materials for electrophotog. photoreceptors and org. **electroluminescence** devices)

RN 462631-36-3 HCA

CN INDEX NAME NOT YET ASSIGNED



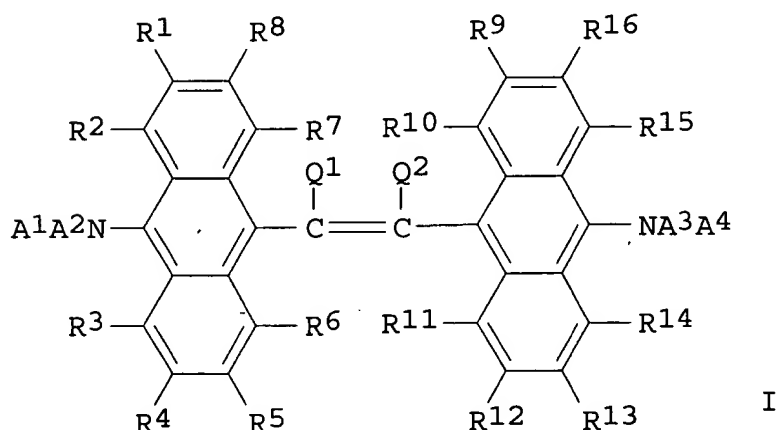
- IC ICM C07C209-10
ICS C07C209-62; C07C211-54; C07C211-58
- CC 25-24 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 74, 76
- ST arom amine prepn elec charge transporting material; electrophotog
photoreceptor arom amine prepn; org **electroluminescence**
device arom amine prepn; amine arylation aryl halide; noble metal
arylation catalyst
- IT Amination
Arylation
Electroluminescent devices
Electrophotographic photoconductors (photoreceptors)
(method for producing arom. amino compds. as elec. charge
transporting materials for electrophotog. photoreceptors and org.
electroluminescence devices)
- IT Noble metals
(method for producing arom. amino compds. as elec. charge
transporting materials for electrophotog. photoreceptors and org.
electroluminescence devices)
- IT Aryl bromides
(method for producing arom. amino compds. as elec. charge
transporting materials for electrophotog. photoreceptors and org.
electroluminescence devices)
- IT Aryl halides
(method for producing arom. amino compds. as elec. charge
transporting materials for electrophotog. photoreceptors and org.
electroluminescence devices)
- IT Amination catalysts
Arylation catalysts
(palladium compd.; method for producing arom. amino compds. as
elec. charge transporting materials for electrophotog.
photoreceptors and org. **electroluminescence** devices)
- IT 3375-31-3 13716-12-6, Tris-tert-butylphosphine 51364-51-3,
Tris(dibenzylideneacetone) dipalladium 76189-56-5, (S)-BINAP
(method for producing arom. amino compds. as elec. charge
transporting materials for electrophotog. photoreceptors and org.
electroluminescence devices)
- IT 164724-35-0P 462631-35-2P **462631-36-3P**
(method for producing arom. amino compds. as elec. charge
transporting materials for electrophotog. photoreceptors and org.
electroluminescence devices)
- IT 92-66-0, 4-Bromobiphenyl 92-67-1, 4-Aminobiphenyl 92-86-4,
4,4'-Dibromobiphenyl 100-46-9, Benzylamine, reactions 580-13-2,
2-Bromonaphthalene 1591-31-7, 4-Iodobiphenyl 2765-14-2,
4,4'-Dibromostilbene 3001-15-8, 4,4'-Diiodobiphenyl
(method for producing arom. amino compds. as elec. charge
transporting materials for electrophotog. photoreceptors and org.
electroluminescence devices)
- IT 532-18-3P, N,N-Di(2-naphthyl)amine 73842-48-5P 102113-98-4P
119546-69-9P 462631-32-9P 462631-33-0P 462631-34-1P,
N,N-Di(2-naphthyl)benzylamine

(method for producing arom. amino compds. as elec. charge transporting materials for electrophotog. photoreceptors and org. **electroluminescence** devices)

L11 ANSWER 2 OF 4 HCA COPYRIGHT 2002 ACS

130:145976 Organic **electroluminescent** material containing anthracene derivative. Okutsu, Satoshi; Tamano, Michiko; Onikubo, Shunichi; Enokida, Toshio (Toyo Ink Mfg. Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11008068 A2, 19990112 Heisei, 36 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-161418 19970618.

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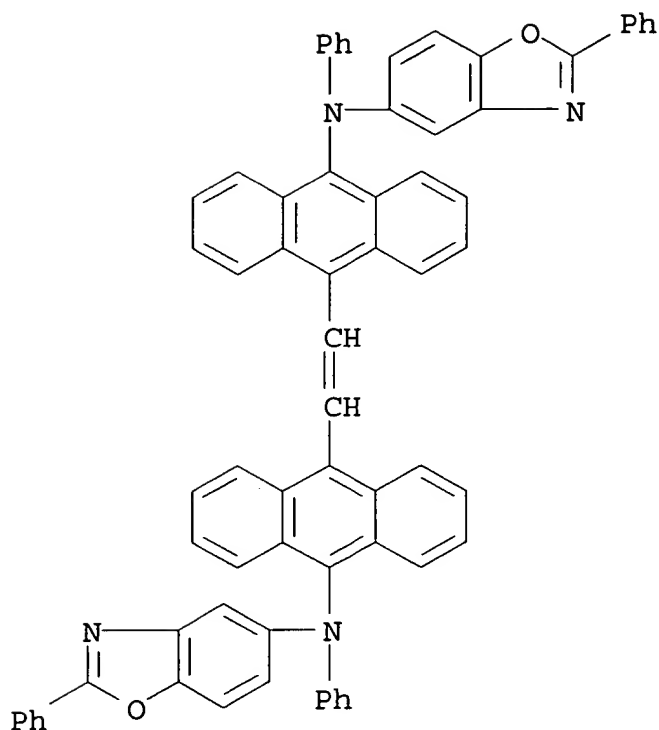
AB ✓ The material, suited for use in an **electroluminescent** device, contains an anthracene deriv. I (A1-4 = alkyl, single ring, condensed ring; A1 and A2 and/or A3 and A4 may bond to form a condensed ring; Q1, 2 = H, cyano, alkyl, single ring, condensed ring; R1-16 = H, halogen, cyano, NO₂, alkyl, alkoxy, aryloxy, alkylthio, arylthio, single ring, condensed ring, NH₂, alkylamino, arylamino). The device shows high luminance and efficiency.

IT 220072-06-0

(org. **electroluminescent** device contg. anthracene deriv.)

RN 220072-06-0 HCA

CN 5-Benzoxazolamine, N,N'-(1,2-ethenediyl)di-10,9-anthracenediyl)bis[N,2-diphenyl- (9CI) (CA INDEX NAME)



IC ICM H05B033-14
 ICS C09K011-06; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 ST **electroluminescent** org device anthracene deriv
 IT **Electroluminescent** devices
 (org. **electroluminescent** device contg. anthracene deriv.)
 IT 220071-88-5 220071-89-6 220071-90-9 220071-91-0 220071-92-1
 220071-93-2 220071-94-3 220071-95-4 220071-97-6 220071-98-7
 220072-00-4 220072-01-5 220072-02-6 220072-03-7 220072-04-8
 220072-05-9 **220072-06-0** 220072-07-1 220072-08-2
 220072-09-3 220072-10-6 220072-11-7 220072-12-8 220072-13-9
 220072-15-1 220072-16-2 220072-17-3 220072-18-4 220072-19-5
 220072-21-9 220072-22-0 220072-23-1 220072-24-2 220072-25-3
 220072-27-5 220072-29-7 220072-32-2
 (org. **electroluminescent** device contg. anthracene deriv.)
 IT 220072-34-4
 (org. **electroluminescent** device contg. anthracene deriv.)

L11 ANSWER 3 OF 4 HCA COPYRIGHT 2002 ACS
 130:67186 Polymer compositions for nonlinear optical materials and their use in manufacture of optical and electronic devices. Hari, Shingu Naruwa (Hitachi, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10316871

A2 19981202 Heisei, 19 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 1997-129489 19970520.

AB The polymer compns. comprise polymers (no data) bearing chromophoric units derived from stilbene compds. $\text{NX}_2\text{C}_6\text{H}_3(\text{R}_3)[\text{C}(\text{R}_1):\text{C}(\text{R}_2)]_n\text{C}_6\text{H}_3(\text{R}_4)\text{SO}_2(\text{CY}_2)_m\text{Z}$ [$\text{X}_2 = \text{H, Me, Et, OR}_3, \text{NR}_3\text{R}_4, \text{SR}_3, \text{SiR}_3, \text{OSiR}_3, \text{R}_3\text{R}_4, \text{COR}_3, \text{PR}_3\text{R}_4, \text{SCN, OCN, CN, NCR}_3; \text{Y H, F, CF}_3; \text{R}_1 = \text{R}_2 = \text{H, CN, halogen, alkyl, fluoroalkyl, thioalkyl, alkoxy; Z = H, O, H, SR}_3, \text{SO}_2\text{R}_3, \text{SO}_2\text{NR}_3\text{R}_4, \text{SO}_2\text{SR}_3, \text{NR}_3\text{R}_4, \text{NO}_2, \text{COR}_3, \text{COOR}_3, \text{CONR}_3\text{R}_4, \text{COSR}_3, \text{SiR}_3\text{R}_4\text{R}_5, \text{OSiR}_3\text{R}_4\text{R}_5, \text{CN, alkyl, perfluoroalkyl, NH}_2, \text{R}_3, \text{R}_4; \text{R}_5 = \text{H, aliph. groups, alkoxy, siloxy, allyl, alkylamino, alkenyl, alkynyl groups; n = 1-20; m = 1-20]$, and fluorine-contg. polyureas. The compns. are useful for making various devices such as frequency converter, optical switches, memory component, four-wave mixers, optical-bidirection stabilizing devices, optical refractive devices, optical limiters, photoelectronic devices, waveguide devices, photosensors, parallel optical processors, **electroluminescence** devices, 3-dimensional optical-data memory devices, pyroelec. devices, piezoelec. devices, ferroelec. optical memory devices, tactility sensor, and low dielec. const. materials for packaging (no data).

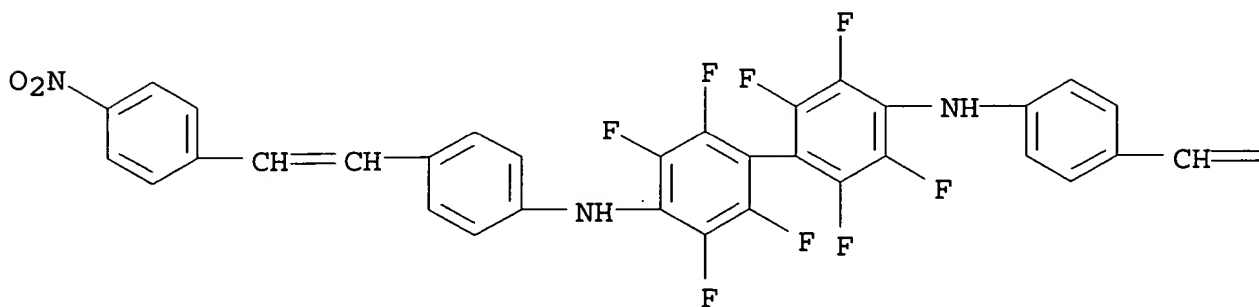
IT 217977-26-9P

(intermediate; reaction in manuf. of polymer compns. for nonlinear optical materials)

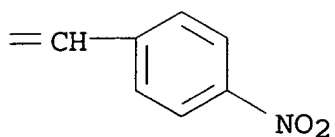
RN 217977-26-9 HCA

CN [1,1'-Biphenyl]-4,4'-diamine, 2,2',3,3',5,5',6,6'-octafluoro-N,N'-bis[4-[2-(4-nitrophenyl)ethenyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 217977-27-0P 217977-32-7P

(polymer compns. for nonlinear optical materials and use in
manuf. of optical and electronic devices)

RN 217977-27-0 HCA

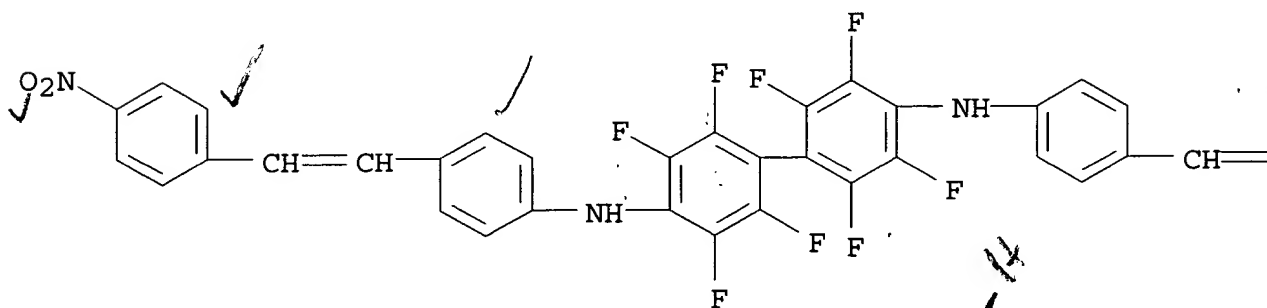
CN [1,1'-Biphenyl]-4,4'-diamine, 2,2',3,3',5,5',6,6'-octafluoro-N,N'-
bis[4-[2-(4-nitrophenyl)ethenyl]phenyl]-, polymer with
1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

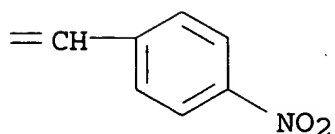
CRN 217977-26-9

CMF C40 H22 F8 N4 O4

PAGE 1-A



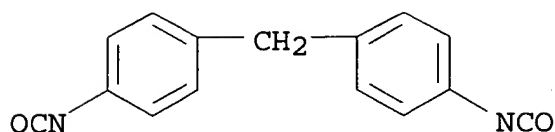
PAGE 1-B



CM 2

CRN 101-68-8

CMF C15 H10 N2 O2



RN 217977-32-7 HCA

CN Poly[iminocarbonyl[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino](2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]carbonylimino-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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IC ICM C08L101-02

ICS C08L075-02; G02F001-35; H01L041-193

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 73, 76

ST nonlinear optical material stilbene deriv polyurea; electronic device manuf nonlinear optical material; memory component manuf nonlinear optical material; frequency converter manuf nonlinear optical material; four wave mixer manuf nonlinear optical material; bidirection stabilizer manuf nonlinear optical material; waveguide device manuf nonlinear optical material; **electroluminescence** device manuf nonlinear optical material; ferroelec optical device manuf nonlinear optical material; photoelectronic device manuf nonlinear optical material; pyroelec device manuf nonlinear optical material

- IT 142004-72-6P 217977-19-0P 217977-20-3P 217977-21-4P
217977-22-5P 217977-23-6P **217977-26-9P**
(intermediate; reaction in manuf. of polymer compns. for
nonlinear optical materials)
- IT 1095-78-9DP, reaction products with nitro group-contg. compd.,
polyureas 100243-85-4P 100243-88-7P 100243-89-8P
100297-28-7P 217977-24-7P 217977-25-8P **217977-27-0P**
217977-30-5P 217977-31-6P **217977-32-7P**
(polymer compns. for nonlinear optical materials and use in
manuf. of optical and electronic devices)

L11 ANSWER 4 OF 4 HCA COPYRIGHT 2002 ACS

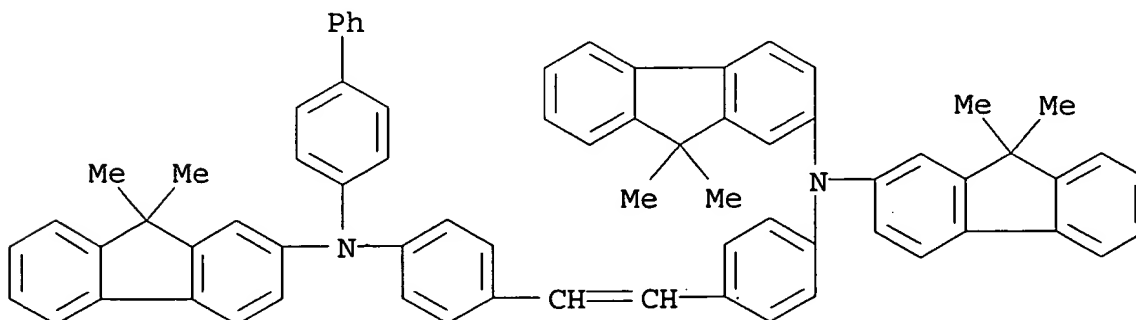
130:30988 Organic compound and **electroluminescent** device using
the same. Senoo, Akihiko; Toshida, Yomishi; Hashimoto, Yuichi;
Ueno, Kazunori; Mashimo, Seiji; Urakawa, Shinichi (Canon Kabushiki
Kaisha, Japan). Eur. Pat. Appl. EP 879868 A2 19981125, 57 pp.
DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI,
LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN:
EPXXDW. APPLICATION: EP 1998-303790 19980514. PRIORITY: JP
1997-142958 19970519.

AB Org. compds. are described which are represented by the general
formula $\text{Ar}_1(\text{Ar}_3)\text{N-X-NAr}_2(\text{Ar}_4)$ (X = (un)substituted arylene group or
(un)substituted heterocyclic group; and each of at least 2 groups
among Ar_1 , Ar_2 , Ar_3 , and Ar_4 = (un)substituted fluorenyl, and the
remainder = (un)substituted aryl). **Electroluminescent**
devices formed of a pair of electrodes and an org. layer including
.gtoreq.1 of the compds described above interposed between the
electrodes are also described. Prepn. of the compds entails
reacting I-X-I with compds. described by the general formula HNArAr'
(Ar , Ar' = desired (un)substituted fluorenyl and (un)substituted
aryl groups).

IT **216454-88-5P**
(org. diamino compds. and their prepn. and
electroluminescent devices using them)

RN 216454-88-5 HCA

CN 9H-Fluoren-2-amine, N-[1,1'-biphenyl]-4-yl-N-[4-[2-[4-[bis(9,9-
dimethyl-9H-fluoren-2-yl)amino]phenyl]ethenyl]phenyl]-9,9-dimethyl-
(9CI) (CA INDEX NAME)



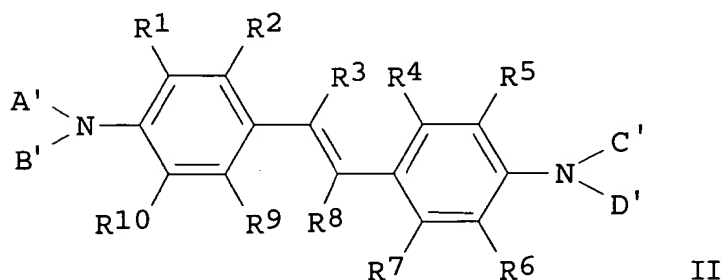
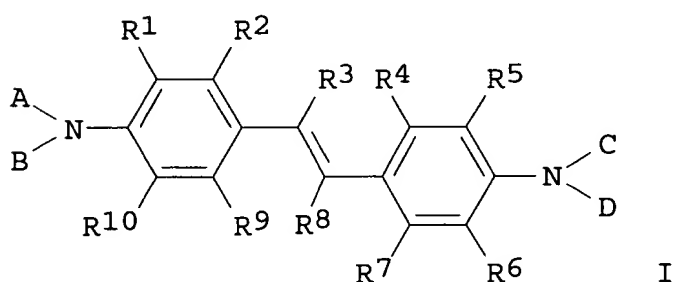
IC ICM C09K011-06

ICS H05B033-14
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 25
ST **electroluminescent** device org diamino compd
IT **Electroluminescent** devices
(org. diamino compds. and their prepn. and **electroluminescent** devices using them)
IT 2085-33-8, Tris(8-hydroxyquinolinato)aluminum 51325-91-8, DCM
61843-06-9 65181-78-4, N,N'-Diphenyl-N,N'-bis(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine
(org. diamino compds. and their prepn. and **electroluminescent** devices using them)
IT 216453-88-2P 216453-89-3P 216453-90-6P 216453-91-7P
216453-92-8P 216453-93-9P 216453-96-2P 216453-97-3P
216453-98-4P 216453-99-5P 216454-01-2P 216454-02-3P
216454-03-4P 216454-05-6P 216454-06-7P 216454-07-8P
216454-08-9P 216454-09-0P 216454-10-3P 216454-11-4P
216454-12-5P 216454-13-6P 216454-14-7P 216454-15-8P
216454-16-9P 216454-17-0P 216454-18-1P 216454-19-2P
216454-20-5P 216454-21-6P 216454-22-7P 216454-23-8P
216454-24-9P 216454-26-1P 216454-27-2P 216454-28-3P
216454-29-4P 216454-30-7P 216454-31-8P 216454-32-9P
216454-34-1P 216454-36-3P 216454-37-4P 216454-41-0P
216454-42-1P 216454-43-2P 216454-44-3P 216454-45-4P
216454-46-5P 216454-47-6P 216454-48-7P 216454-49-8P
216454-50-1P 216454-51-2P 216454-52-3P 216454-53-4P
216454-54-5P 216454-55-6P 216454-56-7P 216454-57-8P
216454-58-9P 216454-59-0P 216454-60-3P 216454-61-4P
216454-62-5P 216454-63-6P 216454-64-7P 216454-65-8P
216454-66-9P 216454-67-0P 216454-68-1P 216454-69-2P
216454-70-5P 216454-71-6P 216454-72-7P 216454-73-8P
216454-74-9P 216454-75-0P 216454-76-1P 216454-77-2P
216454-78-3P 216454-79-4P 216454-80-7P 216454-81-8P
216454-82-9P 216454-83-0P 216454-84-1P 216454-85-2P
216454-86-3P 216454-87-4P **216454-88-5P** 216454-89-6P
(org. diamino compds. and their prepn. and **electroluminescent** devices using them)
IT 216453-94-0P 216453-95-1P 216454-00-1P 216454-04-5P
216454-25-0P 216454-33-0P 216454-35-2P 216454-38-5P
216454-39-6P 216454-40-9P
(org. diamino compds. and their prepn. and **electroluminescent** devices using them)
IT 531-91-9, N,N'-Diphenylbenzidine 144981-85-1, 2-Iodo-9,9-dimethylfluorene 216454-90-9
(org. diamino compds. and their prepn. and **electroluminescent** devices using them)

=> d l14 1-5 cbib abs hitstr hitind

136:238790 Novel styryl compounds and organic **electroluminescent** devices. Funahashi, Masakazu; Arai, Hiromasa; Hosokawa, Chishio (Idemitsu Kosan Co., Ltd., Japan). PCT Int. Appl. WO 2002020459 A1 20020314, 37 pp. DESIGNATED STATES: W: CN, IN, JP, KR; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2001-JP7295 20010827. PRIORITY: JP 2000-265544 20000901.

GI



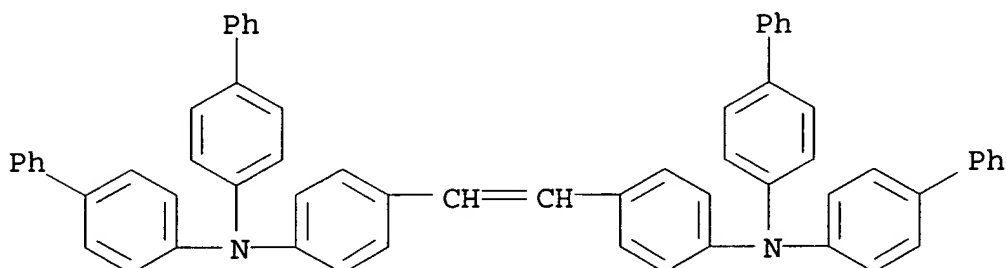
application

AB Novel styryl compds. I or II; and an org. **electroluminescent** device with an org. compd. film comprising at least a **light emitting** layer, wherein a novel styryl compd. described above is contained in .gtoreq.1 layer constituting the film: I and II (wherein R1 to R10 are each independently H, alkyl, alkoxy, aryl, aryloxy, a fused polycyclic group, a heterocyclic group, amino, alkylamino, arylamino, cyano, nitro, hydroxyl, or halo, or alternatively any adjacent 2 of R1 to R10 may be united to form a satd. or unsatd. C ring; and A, B, C, D, A', B', C' and D' are each independently a substituted or unsubstituted alkyl or aryl group having a specific structure). The invention provides org. **electroluminescent** devices exhibiting high heat resistance, high **light emitting** efficiency, long lifetime and high blue color purity, and novel styryl compds. capable of realizing such **lectroluminescent** devices.

IT 403671-71-6

(novel styryl compds. and org. **electroluminescent** devices)

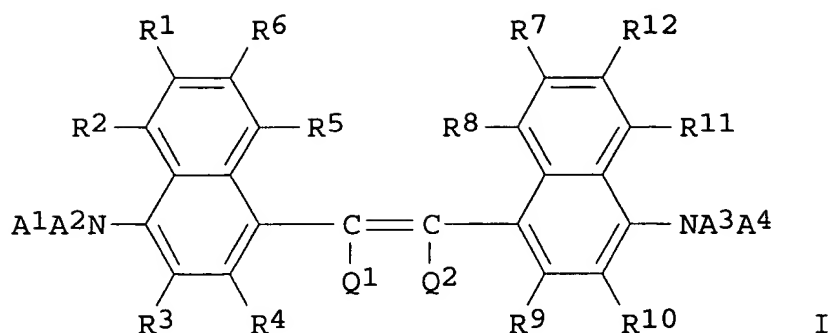
RN 403671-71-6 HCA
 CN [1,1'-Biphenyl]-4-amine, N,N'-(1,2-ethenediyl-di-4,1-phenylene)bis[N-
 [1,1'-biphenyl]-4-yl- (9CI) (CA INDEX NAME)



IC ICM C07C211-54
 ICS C07C211-58; C07C211-61; C07C217-94; C09K011-06; H05B033-14
 CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related
 Properties)
 Section cross-reference(s): 25
 ST styryl deriv org **electroluminescent** device
 IT Fluorescence
 Radiative transition
 (lifetime; novel styryl compds. and org.
electroluminescent devices)
 IT Aryl groups
Electroluminescent devices
 Glass substrates
 Thermal resistance
 (novel styryl compds. and org. **electroluminescent**
 devices)
 IT 2085-33-8, Tris(8-quinolinolato)aluminum 7429-90-5, Aluminum, uses
 7439-93-2, Lithium, uses 50926-11-9, ITO 65181-78-4, TPD
 142289-08-5, DPVBI 186412-15-7 **403671-71-6** 403671-72-7
 403671-73-8 403671-74-9
 (novel styryl compds. and org. **electroluminescent**
 devices)

L14 ANSWER 2 OF 5 HCA COPYRIGHT 2002 ACS
 130:202697 Organic **electroluminescent** device used as planar
 light source in optical displays. Okutsu, Akira; Tamano, Michiko;
 Onikubo, Shunichi; Enokida, Toshio (Toyo Ink Mfg. Co., Ltd., Japan).
 Jpn. Kokai Tokkyo Koho JP 11040359 A2 19990212 Heisei, 27 pp.
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-195294 19970722.

GI



AB An org. **electroluminescent** device with high intensity and long operation life, comprises a **light emitting** layer contg. a substance represented by I [A1-4 = alkyl, monocyclic, condensed polycyclic, etc.; Q1-2 = H, CN, alkyl, etc.; R1-12 = H, halo, CN, NO₂, etc.] and an electron injection/transporting layer contg. a substance represented by 1X2XLGe [X1-2 = hydroxyquinoline, and hydroxybenzoquinoline derivs.; L = halo, alkyl, monocyclic, etc.].

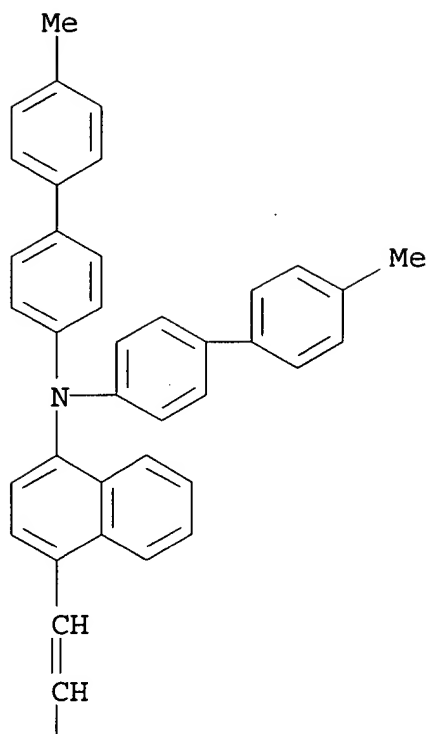
IT **220720-16-1**

(org. **electroluminescent** device used as planar light source in optical displays)

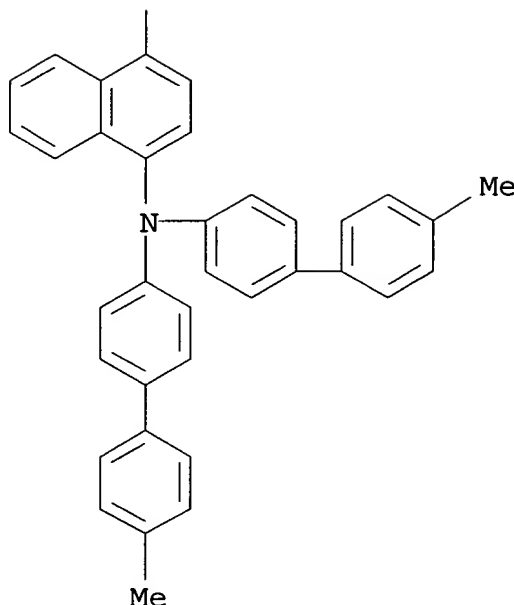
RN 220720-16-1 HCA

CN 1-Naphthalenamine, 4,4'-(1,2-ethenediyl)bis[N,N-bis(4'-methyl[1,1'-biphenyl]-4-yl)-(9CI) (CA INDEX NAME)

PAGE 1-A



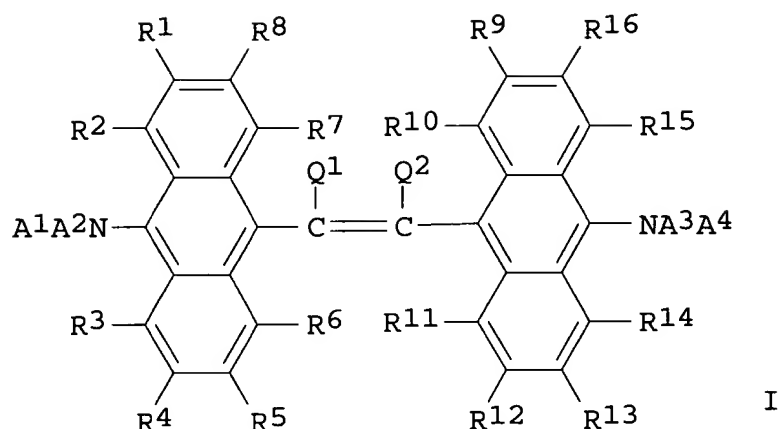
PAGE 2-A



IC ICM H05B033-14
ICS C09K011-06; H05B033-22
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
ST org **electroluminescent** device
IT **Electroluminescent** devices
(org. **electroluminescent** device used as planar light source in optical displays)
IT 2085-33-8, Al 8q 15082-28-7 62896-28-0 65181-78-4, TPD
123847-85-8, 4,4'-Bis{N-(1-naphthyl)-N-phenylamino}biphenyl
124729-98-2, 4,4',4'''-Tris[N-(3-methylphenyl)-N-phenylamino]triphenylamine 151026-65-2, N,N'-(4-Methylphenyl)-N,N'-(4-n-butylphenyl)-phenanthrene-9,10-diamine 177799-11-0
177799-15-4 188049-36-7 194794-43-9 219638-64-9 220720-15-0
220720-16-1 220720-17-2 220720-18-3 220720-19-4
220720-20-7 220720-21-8 220720-22-9 220720-23-0 220720-24-1
220720-25-2 220720-26-3 220720-27-4 220720-28-5 220720-29-6
220720-31-0 220720-33-2 220720-34-3 220720-35-4 220720-36-5
220720-37-6 220720-38-7 220720-39-8
(org. **electroluminescent** device used as planar light source in optical displays)

L14 ANSWER 3 OF 5 HCA COPYRIGHT 2002 ACS
130:145976 Organic **electroluminescent** material containing anthracene derivative. Okutsu, Satoshi; Tamano, Michiko; Onikubo, Shunichi; Enokida, Toshio (Toyo Ink Mfg. Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11008068 A2 19990112 Heisei, 36 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-161418 19970618.

GI



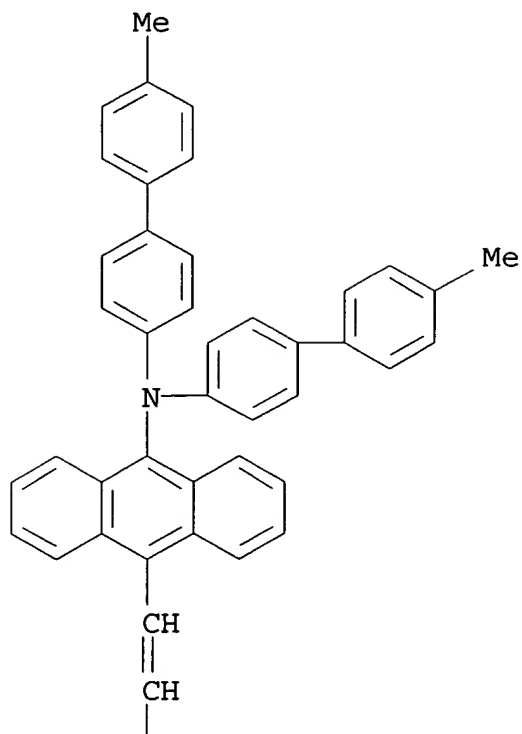
AB The material, suited for use in an **electroluminescent** device, contains an anthracene deriv. I (A1-4 = alkyl, single ring, condensed ring; A1 and A2 and/or A3 and A4 may bond to form a condensed ring; Q1, 2 = H, cyano, alkyl, single ring, condensed ring; R1-16 = H, halogen, cyano, NO₂, alkyl, alkoxy, aryloxy, alkylthio, arylthio, single ring, condensed ring, NH₂, alkylamino, arylamino). The device shows high luminance and efficiency.

IT **220071-89-6**
 (org. **electroluminescent** device contg. anthracene deriv.)

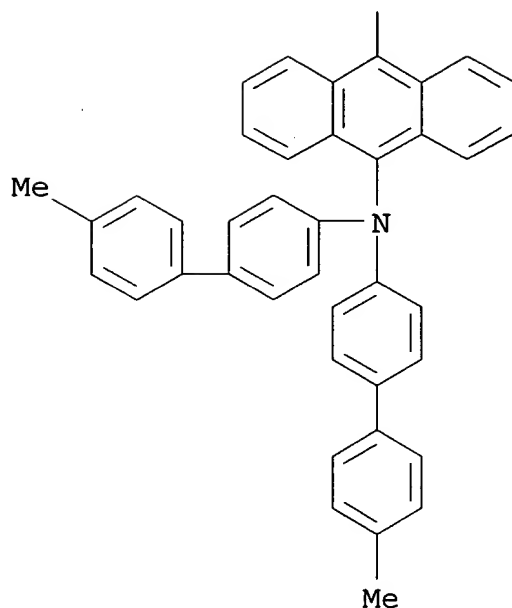
RN 220071-89-6 HCA

CN 9-Anthracenamine, 10,10'-(1,2-ethenediyl)bis[N,N-bis(4'-methyl[1,1'-biphenyl]-4-yl)-(9CI) (CA INDEX NAME)

PAGE 1-A

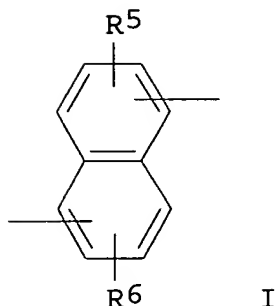


PAGE 2-A

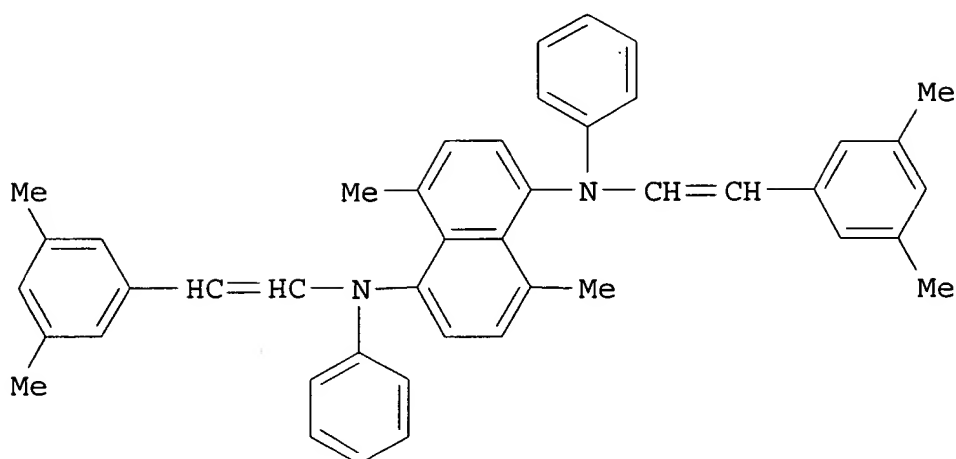


IC ICM H05B033-14
 ICS C09K011-06; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 ST **electroluminescent** org device anthracene deriv
 IT **Electroluminescent** devices
 (org. **electroluminescent** device contg. anthracene deriv.)
 IT 220071-88-5 **220071-89-6** 220071-90-9 220071-91-0
 220071-92-1 220071-93-2 220071-94-3 220071-95-4 220071-97-6
 220071-98-7 220072-00-4 220072-01-5 220072-02-6 220072-03-7
 220072-04-8 220072-05-9 220072-06-0 220072-07-1 220072-08-2
 220072-09-3 220072-10-6 220072-11-7 220072-12-8 220072-13-9
 220072-15-1 220072-16-2 220072-17-3 220072-18-4 220072-19-5
 220072-21-9 220072-22-0 220072-23-1 220072-24-2 220072-25-3
 220072-27-5 220072-29-7 220072-32-2
 (org. **electroluminescent** device contg. anthracene deriv.)
 IT 220072-34-4
 (org. **electroluminescent** device contg. anthracene deriv.)
 L14 ANSWER 4 OF 5 HCA COPYRIGHT 2002 ACS
 126:150490 Electrophotographic photoreceptor containing arylamine compound as charge-transporting agent. Tsuruoka, Eriko; Hirano, Akira (Nippon Electric Co, Japan). Jpn. Kokai Tokkyo Koho JP 08305053 A2 19961122 Heisei, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-114192 19950512.

GI



I



II

AB The title photoreceptor comprises a conductive support coated with a photosensitive layer contg. a compd. $\text{Ar5CR2:CR1Ar1NAr2XNAr3Ar4CR3:CR4Ar6}$ [$\text{Z} = \text{Ar7CH:CHAr8}$, I; Ar1 , Ar4 , Ar7 , $\text{Ar8} =$ (substituted) arylene; Ar2 , Ar3 , Ar5 , $\text{Ar6} =$ (substituted) aryl; $\text{R1-6} = \text{H}$, (substituted) C1-6 alkyl, (substituted) aryl]. The photoreceptor shows high photosensitivity and durability. Thus, an alumite substrate was coated with a charge-generating layer contg. type titanyl phthalocyanine and with a charge-transporting layer contg. II to give a photoreceptor.

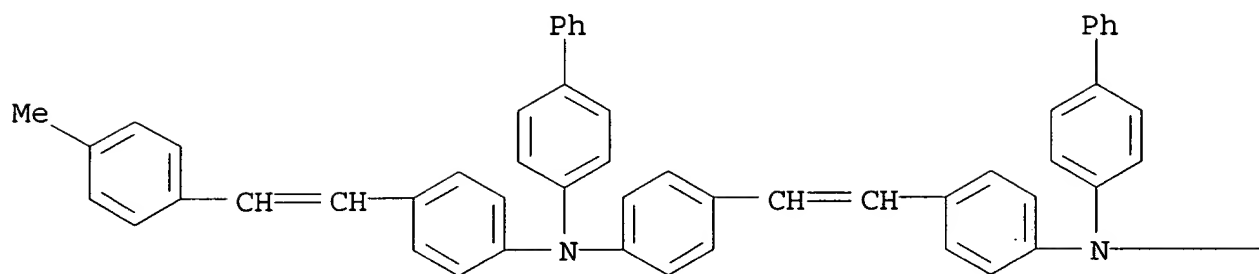
IT 186409-41-6 186409-42-7 186409-43-8
186409-44-9

(electrophotog. photoreceptor contg. amine compd. as charge-transporting agent)

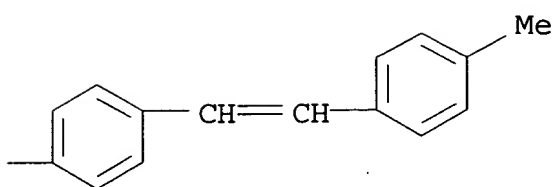
RN 186409-41-6 HCA

CN [1,1'-Biphenyl]-4-amine, N,N'-(1,2-ethenediyl)-4,1-phenylene)bis[N-[4-[2-(4-methylphenyl)ethenyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

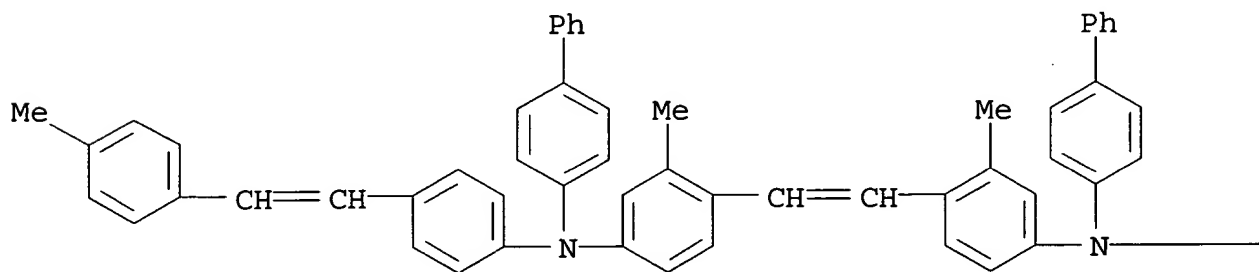


PAGE 1-B

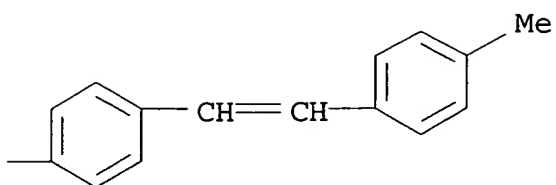


RN 186409-42-7 HCA
 CN [1,1'-Biphenyl]-4-amine, N,N'-[1,2-ethenediylbis(3-methyl-4,1-phenylene)]bis[N-[4-[2-(4-methylphenyl)ethenyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

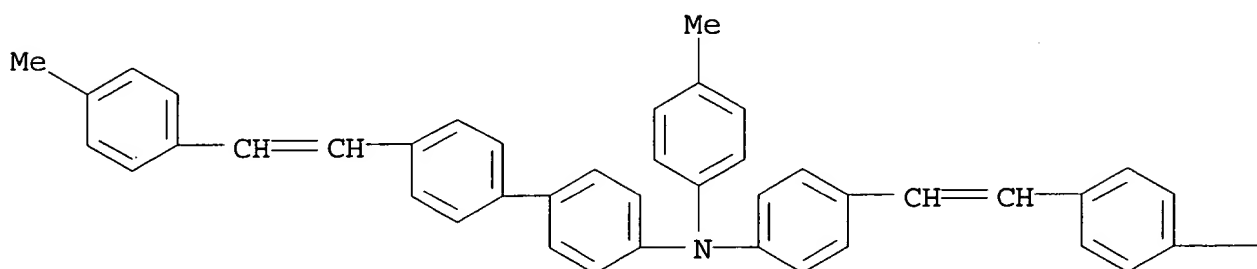


PAGE 1-B

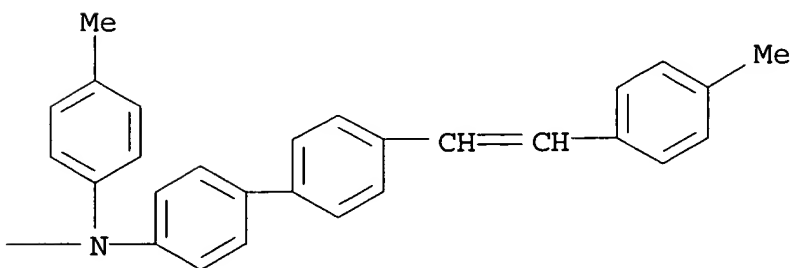


RN 186409-43-8 HCA
 CN [1,1'-Biphenyl]-4-amine, N,N'-(1,2-ethenediyldi-4,1-phenylene)bis[N-(4-methylphenyl)-4'-[2-(4-methylphenyl)ethenyl]-(9CI) (CA INDEX NAME)

PAGE 1-A

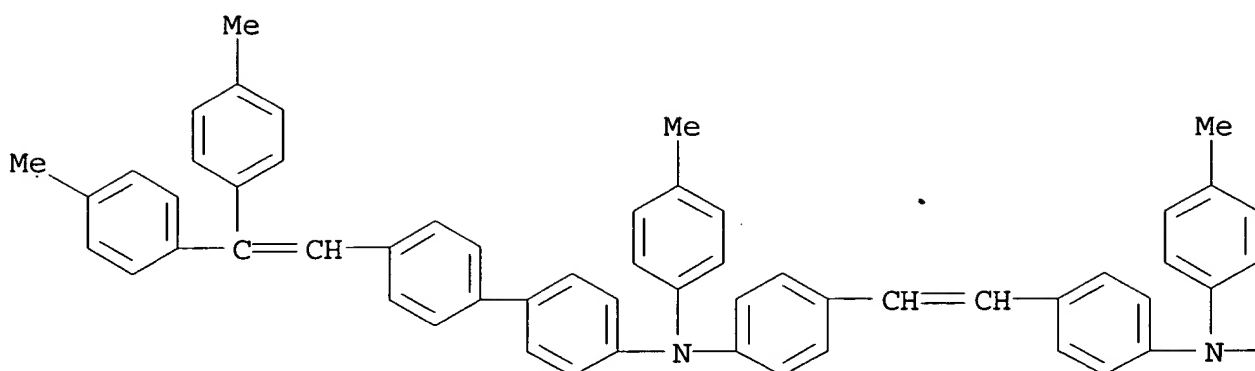


PAGE 1-B

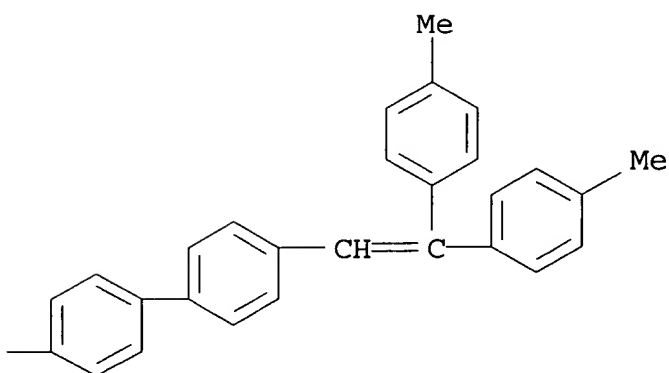


RN 186409-44-9 HCA
 CN [1,1'-Biphenyl]-4-amine, N,N'-(1,2-ethenediyldi-4,1-phenylene)bis[4'-[2,2-bis(4-methylphenyl)ethenyl]-N-(4-methylphenyl)aniline]-(9CI) (CA INDEX NAME)

PAGE 1-A



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IC ICM G03G005-06
ICS G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 150005-33-7 186409-08-5 186409-09-6 186409-10-9 186409-11-0
186409-12-1 186409-13-2 186409-14-3 186409-15-4 186409-16-5
186409-17-6 186409-18-7 186409-19-8 186409-20-1 186409-21-2
186409-22-3 186409-23-4 186409-24-5 186409-25-6 186409-27-8
186409-28-9 186409-30-3 186409-31-4 186409-32-5 186409-34-7
186409-36-9 186409-38-1 186409-40-5 186409-41-6
186409-42-7 186409-43-8 186409-44-9
(electrophotog. photoreceptor contg. amine compd. as charge-transporting agent)

L14 ANSWER 5 OF 5 HCA COPYRIGHT 2002 ACS
107:165420 Electrophotographic charge-generating tetrakisazo pigments.
Matsumoto, Masakazu; Umehara, Masashige; Takiguchi, Takao;
Yamashita, Masataka; Ishikawa, Shozo (Canon K. K., Japan). Jpn.
Kokai Tokkyo Koho JP 62018565 A2 19870127 Showa, 40 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 1985-157699 19850717.

AB The charge-generating tetrakisazo pigments have the formula (AN:NZ3)(AN:NZ4)NZ1CB1:CB2Z2N(Z5N:NA)(Z6N:NA) (I; A = coupler residue with a phenolic OH group; Z1-Z6 = arylene, condensed polycyclene, heterocyclene; B1, B2 = H, halo, CF3, CN, etc.). An electrophotog. charge-generating layer may contain a tetrakisazo pigment of the formula I (A = coupler residue from 3-hydroxy-2-naphthoic acid anilide; Z1-Z6 = 1,4-phenylene; B1, B2 = H) and a poly(vinyl butyral) binder. It provides electrophotog. photoreceptors with improved sensitivity and voltage stability for repeated use.

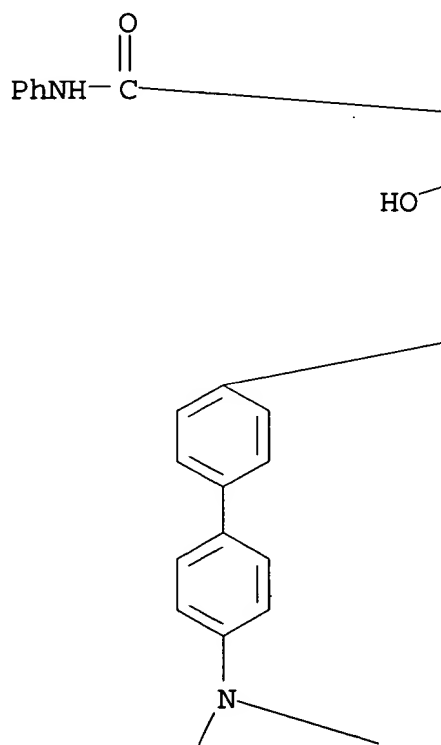
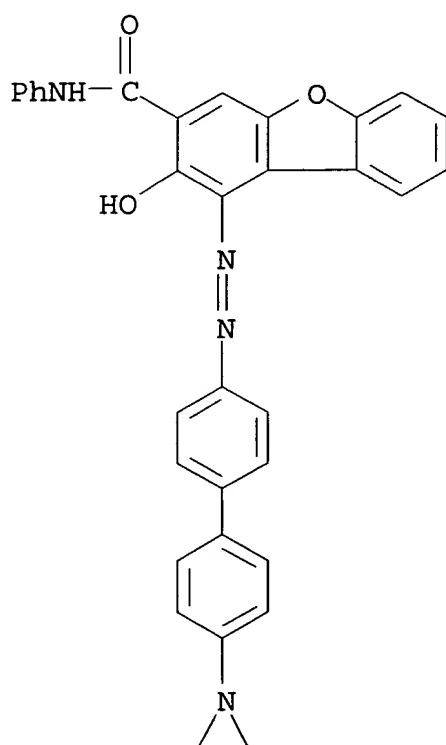
IT 110573-70-1

(electrophotog. charge-generating pigments)

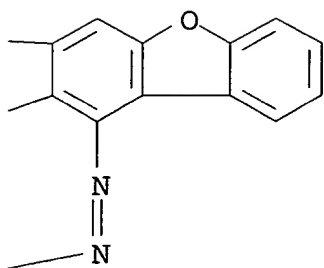
RN 110573-70-1 HCA

CN 3-Dibenzofurancarboxamide, 1,1',1'',1'''-[1,2-ethenediylbis[(2-chloro-4,1-phenylene)nitrilobis([1,1'-biphenyl]-4',4-diylazo)]]tetrakis[2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

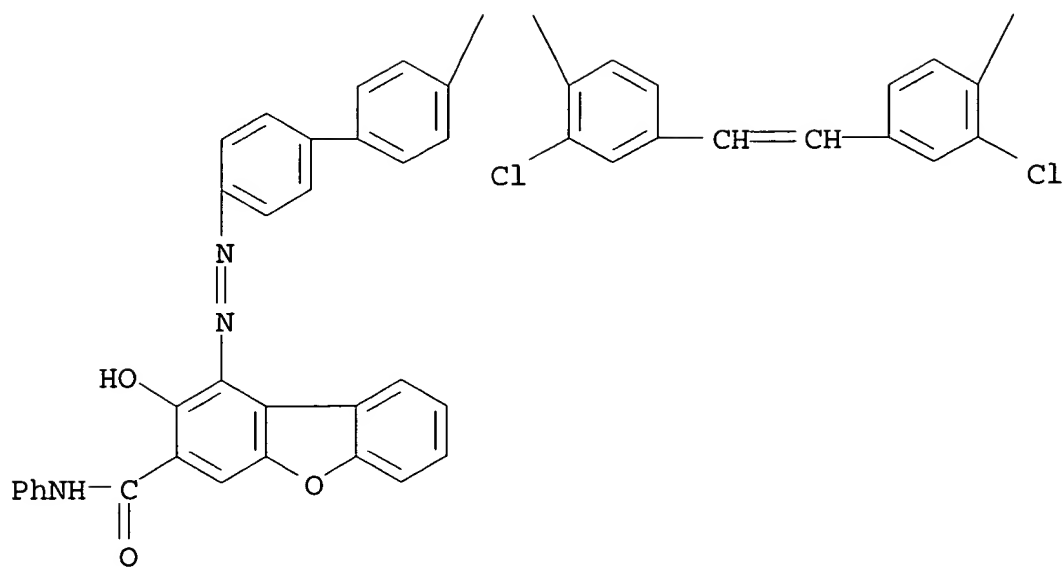
PAGE 1-A



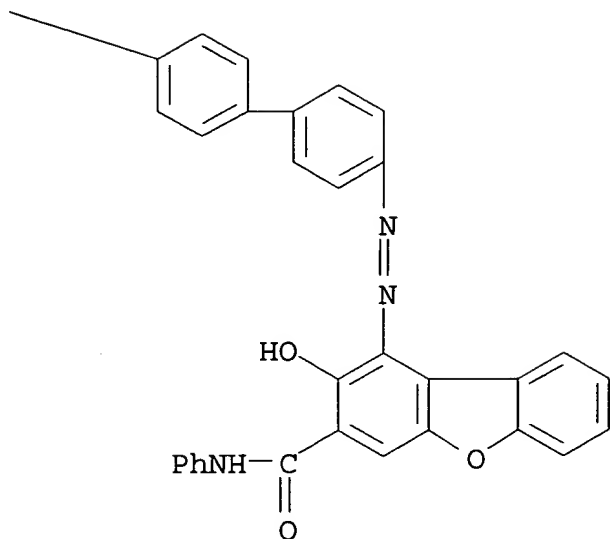
PAGE 1-B



PAGE 2-A



PAGE 2-B



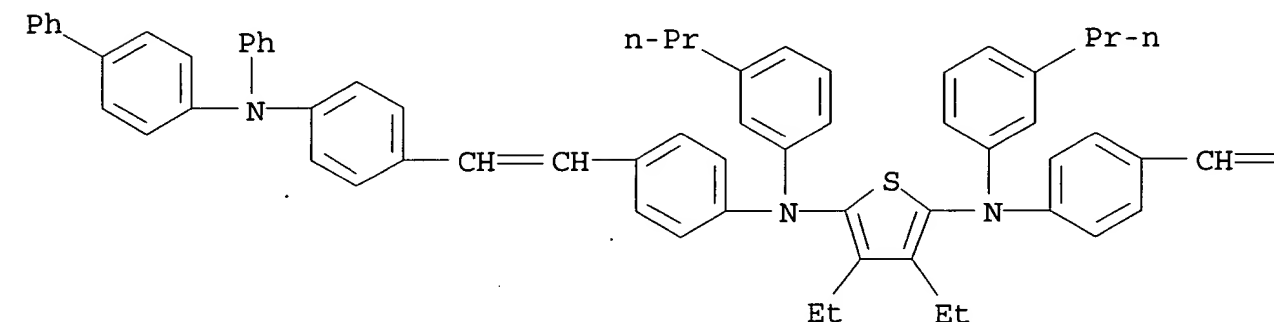
IC ICM G03G005-06
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 IT 98094-34-9 98113-92-9 110573-29-0 110573-30-3 110573-31-4
 110573-32-5 110573-33-6 110573-34-7 110573-35-8 110573-36-9
 110573-37-0 110573-38-1 110573-39-2 110573-40-5 110573-41-6
 110573-42-7 110573-43-8 110573-44-9 110573-45-0 110573-46-1
 110573-47-2 110573-48-3 110573-49-4 110573-50-7 110573-51-8
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 110573-62-1 110573-63-2 110573-64-3 110573-65-4 110573-66-5
 110573-67-6 110573-68-7 110573-69-8 **110573-70-1**
 110573-71-2 110573-72-3 110573-73-4 110573-74-5 110573-75-6
 110591-92-9 110591-93-0 110591-94-1 110591-95-2 110591-96-3
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 (electrophotog. charge-generating pigments)

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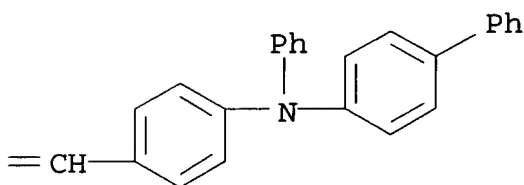
L12 ANSWER 1 OF 72 HCA COPYRIGHT 2002 ACS
 137:239697 Electrophotographic photoreceptor containing thiophen
 derivative as charge-transporting material in light-sensitive layer.
 Sekine, Nobuyuki; Kuroda, Masami (Fuji Electric Imaging Device Co.,
 Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002258500 A2 20020911, 14
 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-70744
 20010313. PRIORITY: JP 2000-398409 20001227.
 IT **457926-24-8**
 (thiophen deriv. in light-sensitive layer of electrophotog.
 photoreceptor)

RN 457926-24-8 HCA
 CN 2,5-Thiophenediamine, N,N'-bis[4-[2-[4-([1,1'-biphenyl]-4-ylphenylamino)phenyl]ethenyl]phenyl]-3,4-diethyl-N,N'-bis(3-propylphenyl)- (9CI) (CA INDEX NAME)

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PAGE 1-B



L12 ANSWER 2 OF 72 HCA COPYRIGHT 2002 ACS

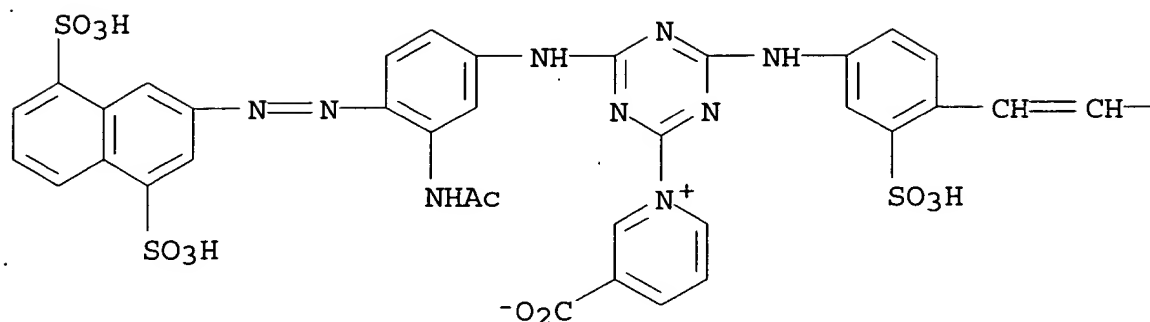
135:154049 Reactive azo dye compositions and method for dyeing cellulose fibers using them. Araki, Satoyuki; Katsuta, Nobuyuki (Sumitomo Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001214087 A2 20010807, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-28125 20000204.

IT **98214-55-2**
 (reactive azo dye compns. for cellulose fibers with good fastness)

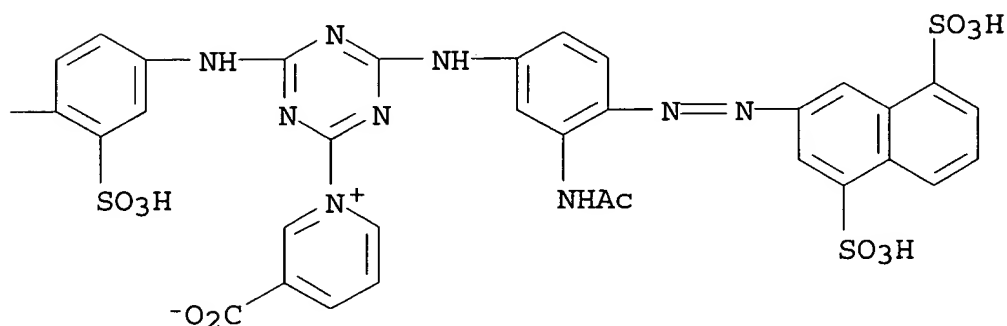
RN 98214-55-2 HCA

CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[[3-(acetylamino)-4-[(4,8-disulfo-2-naphthalenyl)azo]phenyl]amino]-1,3,5-triazine-4,2-diyl]]]bis[3-carboxy-, bis(inner salt) (9CI) (CA INDEX NAME)

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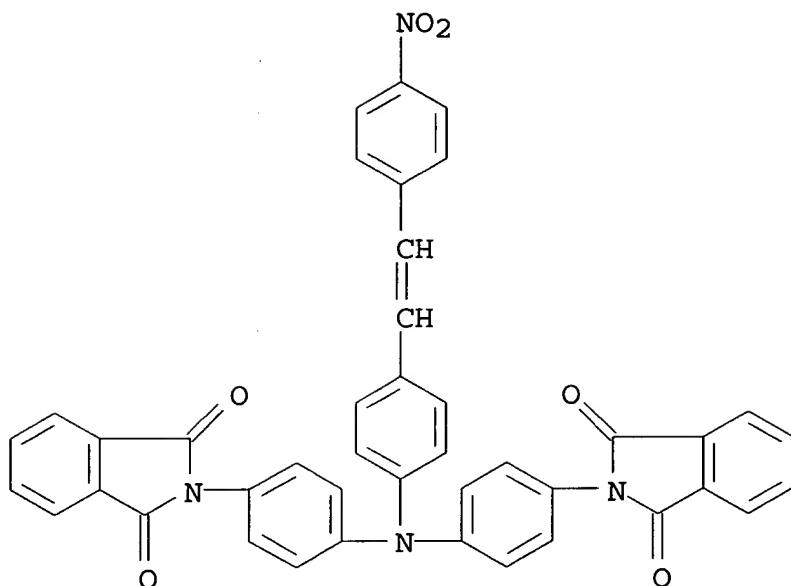
L12 ANSWER 3 OF 72 HCA COPYRIGHT 2002 ACS

134:311464 High glass transition chromophore functionalized polyimides for second-order nonlinear optical applications. Van den Broeck, K.; Verbiest, T.; Degryse, J.; Van Beylen, M.; Persoons, A.; Samyn, C. (Laboratory of Macromolecular and Physical Organic Chemistry, Katholieke Universiteit Leuven, Louvain, B-3001, Belg.). Polymer, 42(8), 3315-3322 (English) 2001. CODEN: POLMAG. ISSN: 0032-3861. Publisher: Elsevier Science Ltd..

IT 211572-86-0P
(prepn. and polymn. of chromophore-functionalized diamine monomer)

RN 211572-86-0 HCA

CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]di-4,1-phenylene]bis- (9CI) (CA INDEX NAME)



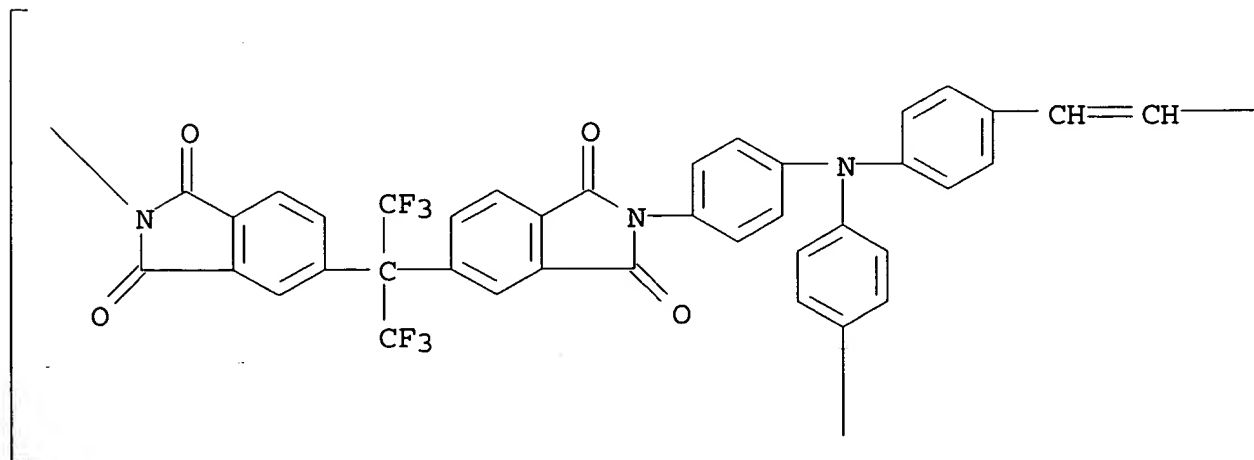
IT 211572-90-6P 334986-58-2P

(prepn. and second-order nonlinear optical properties of
chromophore-functionalized polyimides)

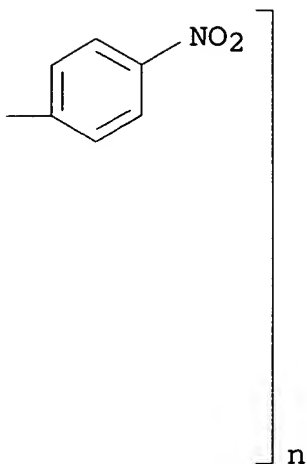
RN 211572-90-6 HCA

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl) [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene] (1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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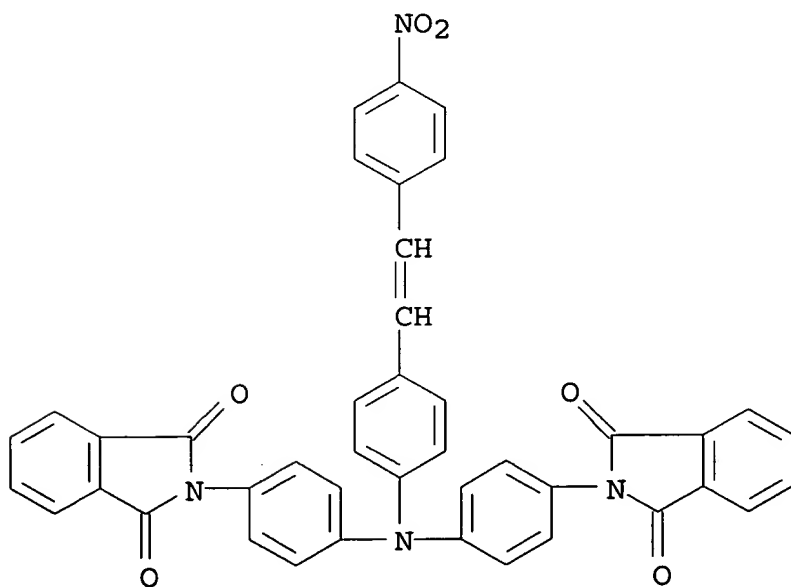
PAGE 1-B



RN 334986-58-2 HCA
CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]di-4,1-phenylene]bis-, polymer with 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

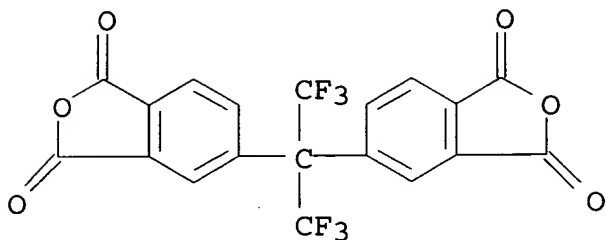
CM 1

CRN 211572-86-0
CMF C42 H26 N4 O6



CM 2

CRN 1107-00-2
CMF C19 H6 F6 O6



L12 ANSWER 4 OF 72 HCA COPYRIGHT 2002 ACS

133:253107 Orientational distribution of SHG chromophore on polyimide LB film. Jung, Cheolsoo; Park, Byoungchoo; Jikei, Mitsutoshi; Takezoe, Hideo; Kakimoto, Masa-Aki (Department of Organic and Polymeric Materials, Tokyo Institute of Technology, Tokyo, Japan). MCLC S&T, Section B: Nonlinear Optics, 22(1-4), 123-126 (English) 1999. CODEN: MCLOEB. ISSN: 1058-7268. Publisher: Gordon & Breach Science Publishers.

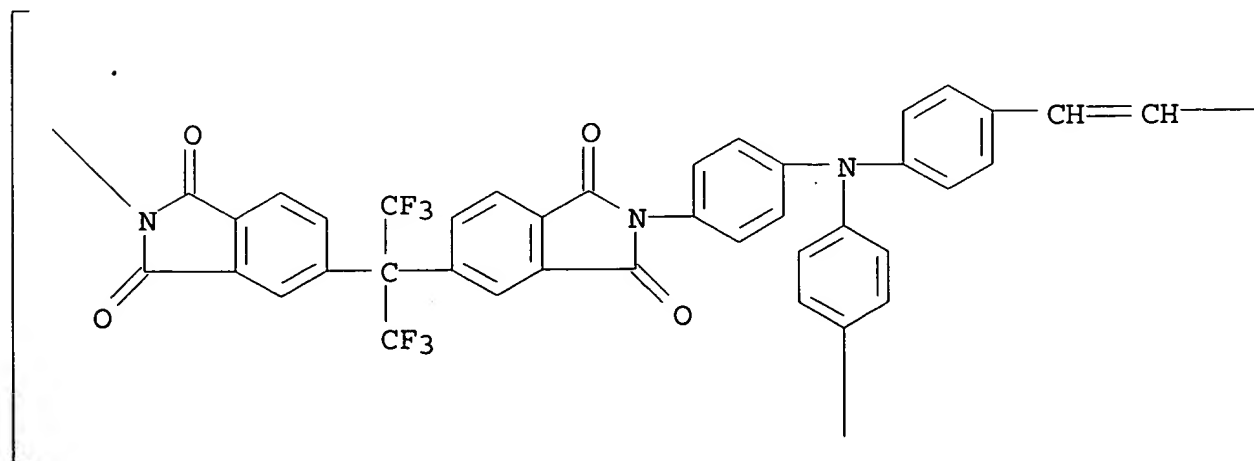
IT 211572-90-6

(chromophore; orientational distribution of second harmonic generation chromophore in polyimide Langmuir-Blodgett film)

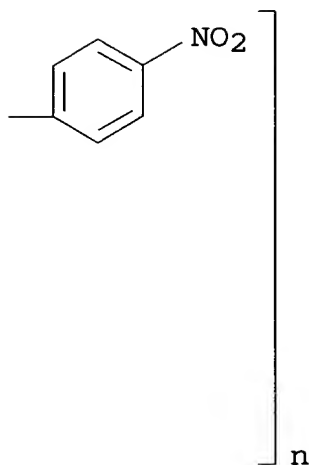
RN 211572-90-6 HCA

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl) [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene] (1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene][4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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L12 ANSWER 5 OF 72 HCA COPYRIGHT 2002 ACS

133:90092 Ultrahigh-temperature polymers for second-order nonlinear optics. Synthesis and properties of robust, processable, chromophore-embedded polyimides. Davey, M. H.; Lee, V. Y.; Wu, L.-M.; Moylan, C. R.; Volksen, W.; Knoesen, A.; Miller, R. D.; Marks, T. J. (Department of Chemistry and the Materials Research Center, Northwestern University, Evanston, IL, 60208-3113, USA). Chemistry of Materials, 12(6), 1679-1693 (English) 2000. CODEN: CMATEX. ISSN: 0897-4756. Publisher: American Chemical Society.

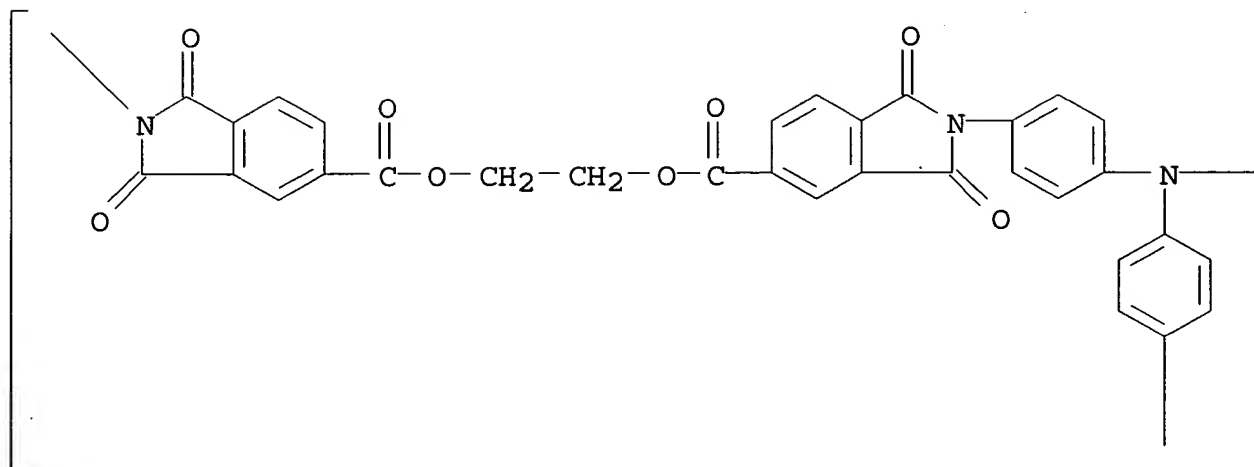
IT 268747-54-2

(synthesis and properties of chromophore-embedded polyimides for 2nd-order nonlinear optics)

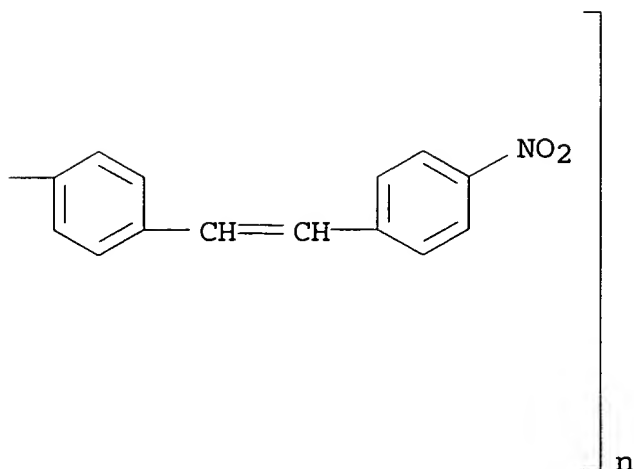
RN 268747-54-2 HCA

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyloxy-1,2-ethanediylloxycarbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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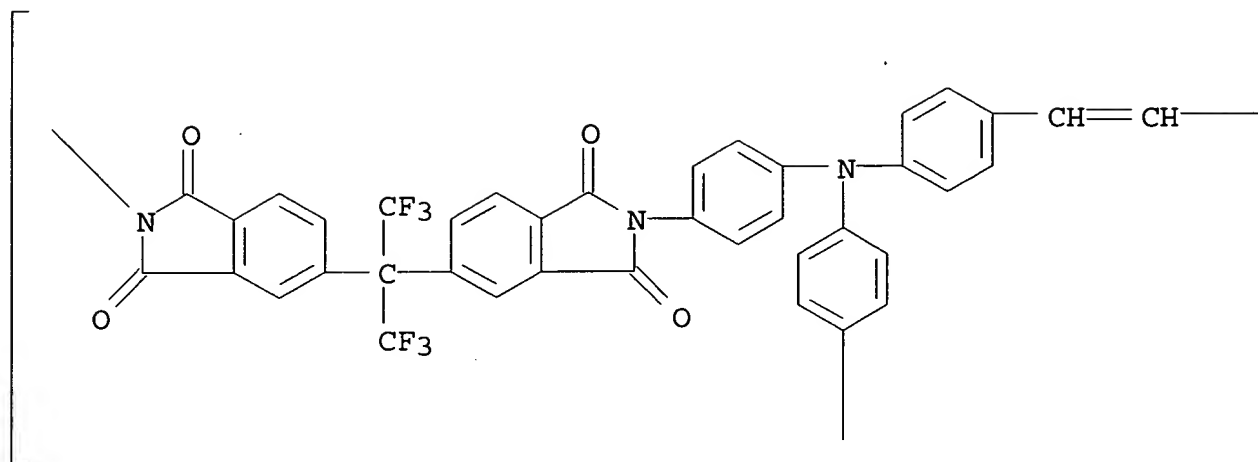
IT 211572-90-6P

(synthesis and properties of chromophore-embedded polyimides for
2nd-order nonlinear optics)

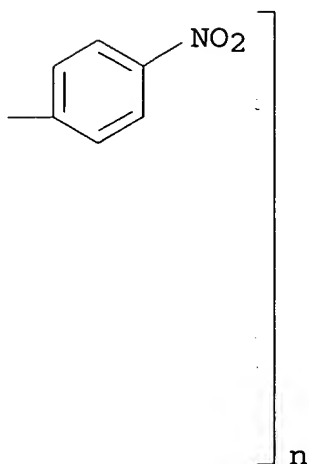
RN 211572-90-6 HCA

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl) [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene] (1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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L12 ANSWER 6 OF 72 HCA COPYRIGHT 2002 ACS

133:44236 The photorefractive effect in monolithic structural polyimides. Jung, Cheolsoo; Aoyama, Tetsuya; Wada, Tatsuo; Sasabe, Hiroyuki; Jike, Mitsutoshi; Kakimoto, Masa-Aki (Department of Organic and Polymeric Materials, Tokyo Institute of Technology, Tokyo, 152-8552, Japan). High Performance Polymers, 12(1), 205-212 (English) 2000. CODEN: HPPOEX. ISSN: 0954-0083. Publisher: Institute of Physics Publishing.

IT 211572-90-6

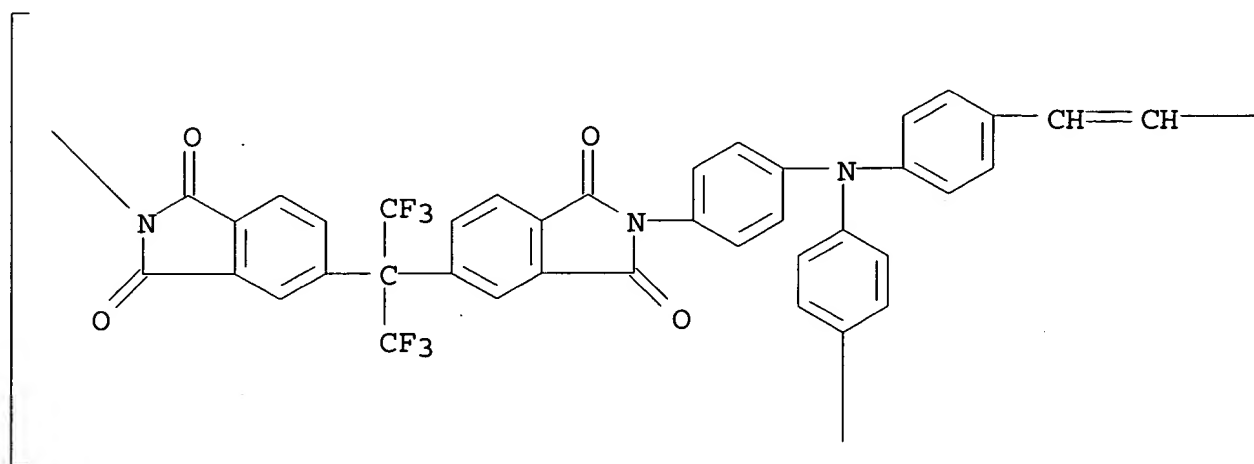
(photorefractive effect in monolithic structural polyimides)

RN 211572-90-6 HCA

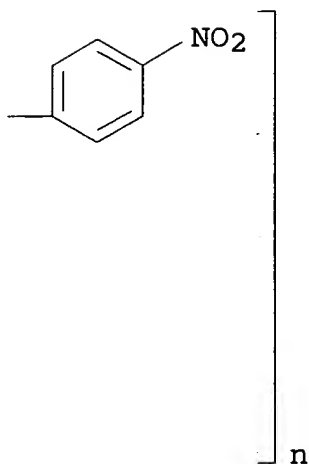
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl) [2,2,2-trifluoro-1-

(trifluoromethyl)ethylidene] (1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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L12 ANSWER 7 OF 72 HCA COPYRIGHT 2002 ACS

132:348370 High temperature chromophore-embedded polyimides for use in second-order nonlinear optics. Davey, M. H.; Lee, V. Y.; Wu, L.-M.; Moylan, C. R.; Volksen, W.; Knoesen, A.; Miller, R. D.; Marks, T. J. (Department of Chemistry and the Materials Research Center, Northwestern University, Evanston, IL, 60208-3113, USA). Polymer Preprints (American Chemical Society, Division of Polymer

Chemistry), 41(1), 853-854 (English) 2000. CODEN: ACPPAY. ISSN: 0032-3934. Publisher: American Chemical Society, Division of Polymer Chemistry.

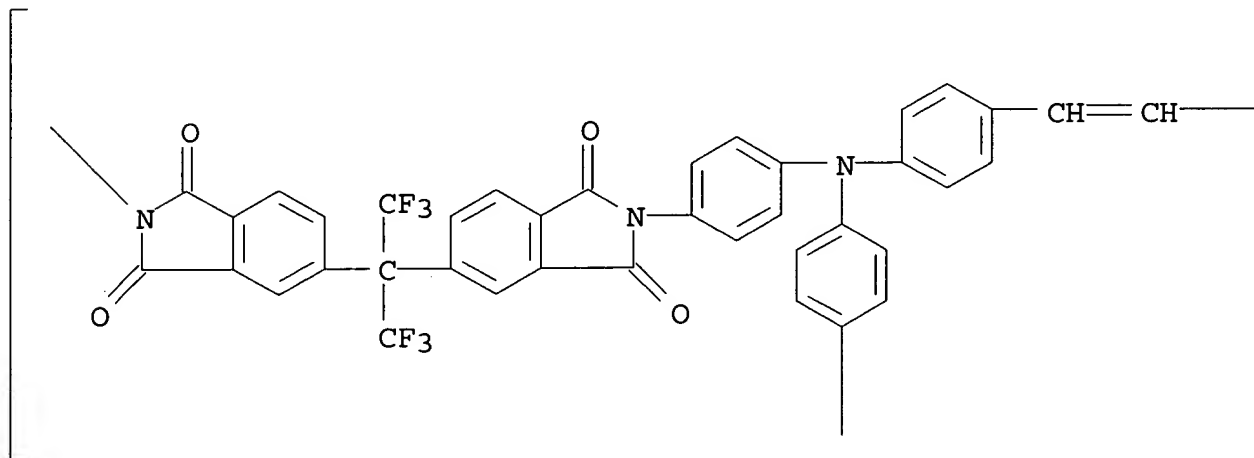
IT 211572-90-6P 268747-54-2P

(high temp. chromophore-embedded polyimides for use in second-order nonlinear optics)

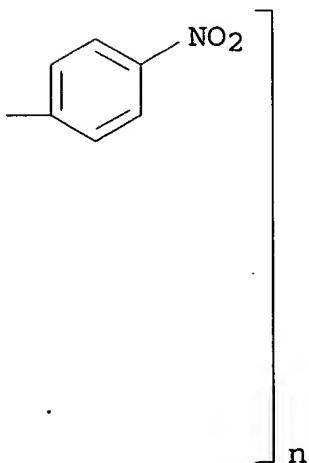
RN 211572-90-6 HCA

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl) [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene] (1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene][4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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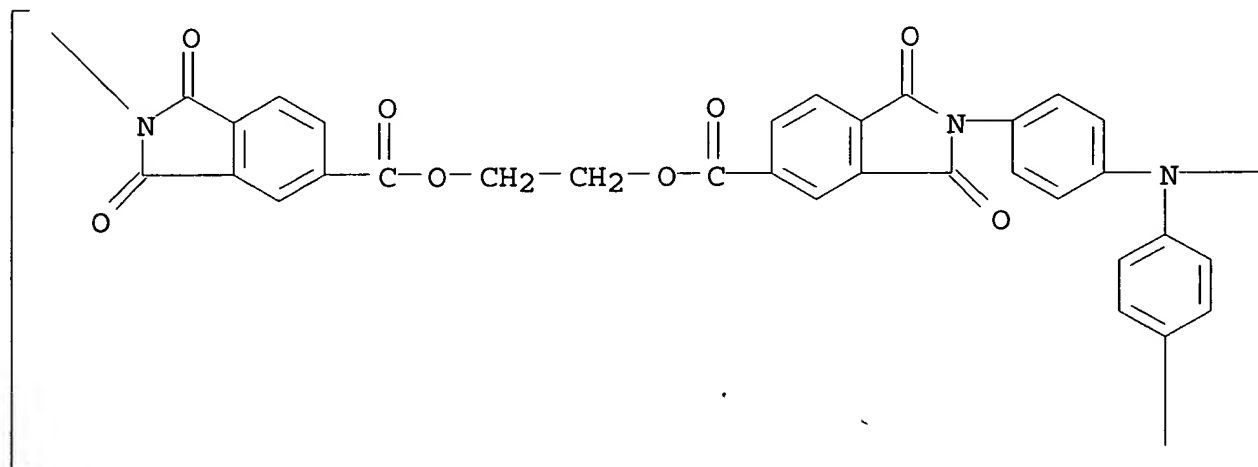
PAGE 1-B



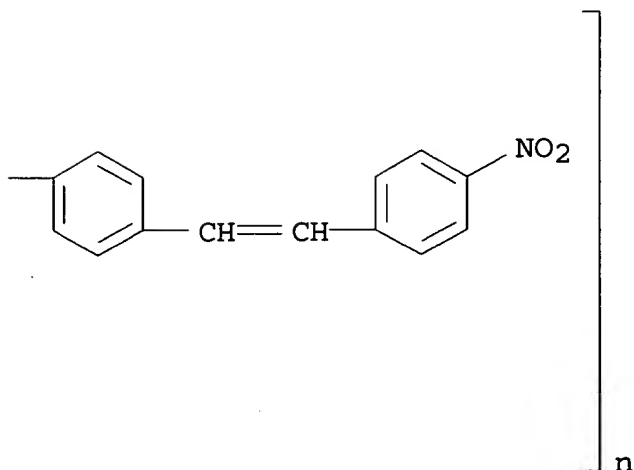
RN 268747-54-2 HCA

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyloxy-1,2-ethanediylloxycarbonyl (1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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L12 ANSWER 8 OF 72 HCA COPYRIGHT 2002 ACS

130:244425 Electrophotographic photoreceptor using specific two types of charge-transporting materials. Kurimoto, Eiji; Umeda, Minoru;

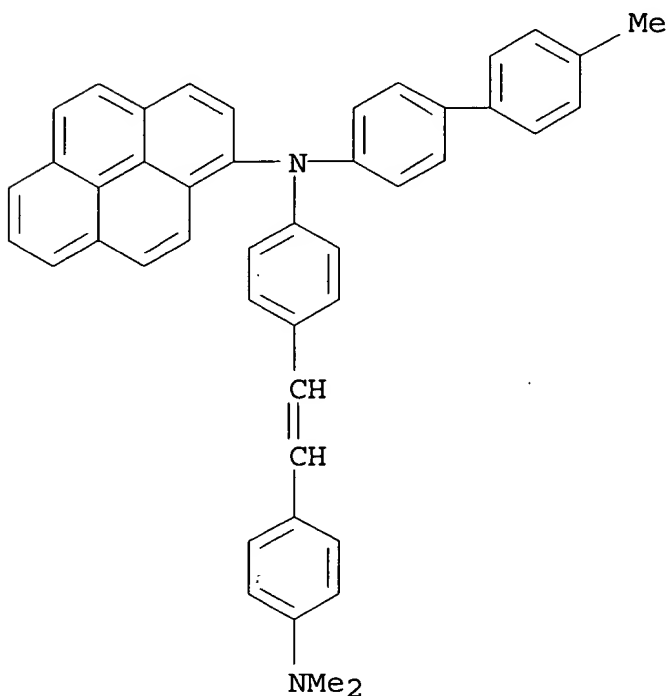
Ikegami, Takaaki; Sakon, Yota (Ricoh Co., Ltd., Japan). Jpn. Kokai
Tokkyo Koho JP 11065140 A2 19990305 Heisei, 384 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 1997-239555 19970815.

IT 213967-23-8 221308-67-4

(electrophotog. photoreceptor contg. two-types of
charge-transporting agents)

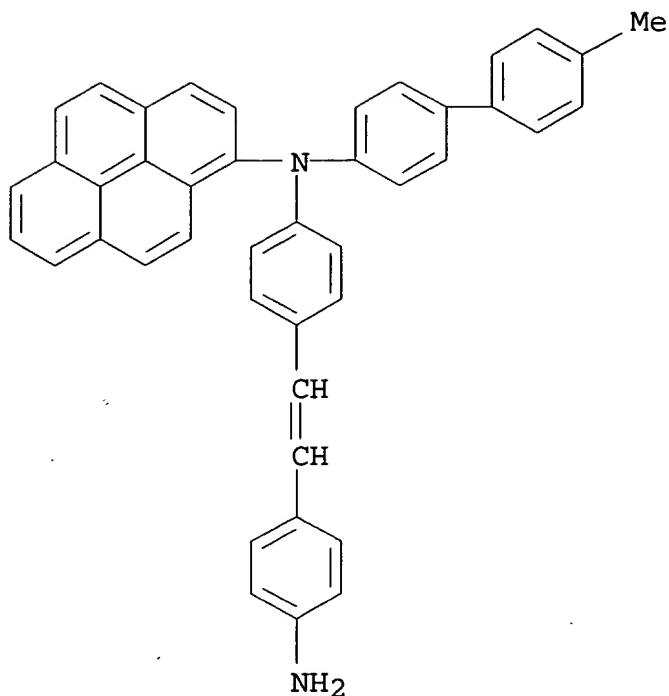
RN 213967-23-8 HCA

CN 1-Pyrenamine, N-[4-[2-[4-(dimethylamino)phenyl]ethenyl]phenyl]-N-(4'-
methyl[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)



RN 221308-67-4 HCA

CN 1-Pyrenamine, N-[4-[2-(4-aminophenyl)ethenyl]phenyl]-N-(4'-
methyl[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)



L12 ANSWER 9 OF 72 HCA COPYRIGHT 2002 ACS

130:168989 Orientational changes of side chain nonlinear chromophore in polyimide Langmuir-Blodgett films. Jung, Cheolsoo; Park, Byoungchoo; Jikei, Mitsutoshi; Takezoe, Hideo; Kakimoto, Masa-Aki (Department of Organic and Polymeric Materials, Tokyo Institute of Technology, Tokyo, 152-8552, Japan). Japanese Journal of Applied Physics, Part 1: Regular Papers, Short Notes & Review Papers, 37(12A), 6636-6640 (English) 1998. CODEN: JAPNDE. ISSN: 0021-4922. Publisher: Japanese Journal of Applied Physics.

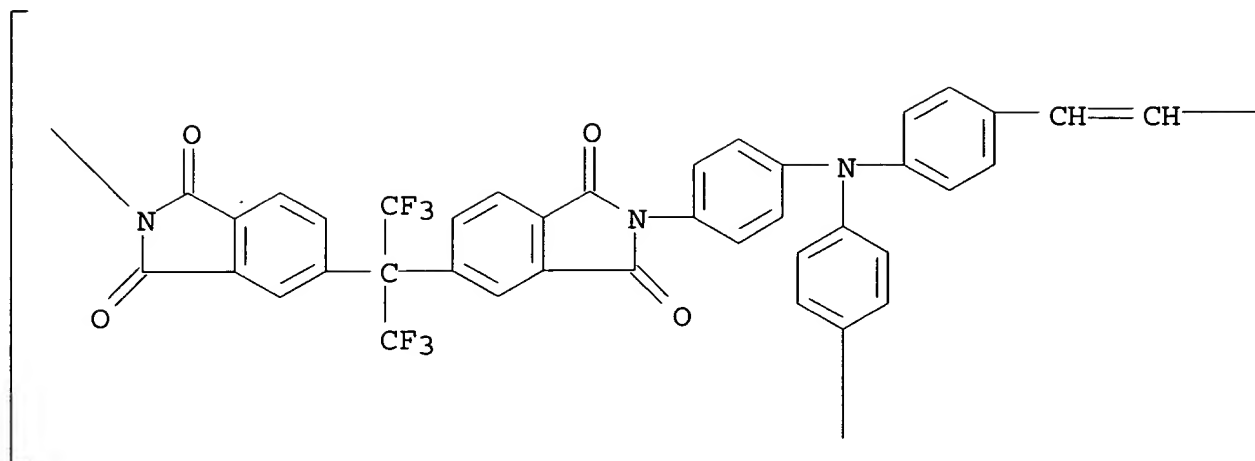
IT 211572-90-6

(orientational changes of side chain nonlinear chromophore in polyimide Langmuir-Blodgett films)

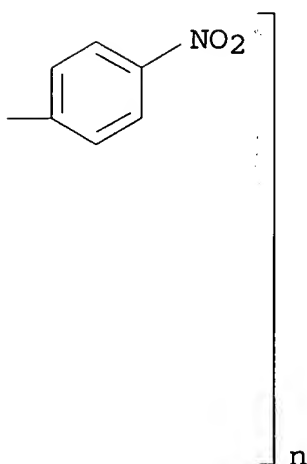
RN 211572-90-6 HCA

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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129:283407 Electrophotographic photoreceptor with improved sensitivity and durability. Umeda, Minoru; Sakon, Yota; Ikegami, Takaaki; Kurimoto, Eiji (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10239879 A2 19980911 Heisei, 223 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-62270 19970228.

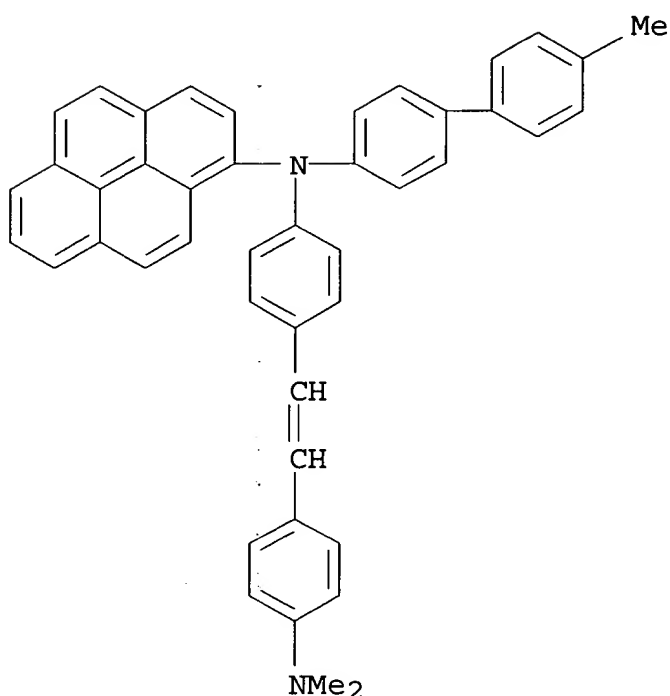
IT 213967-23-8

(charge transport material in electrophotog. photoreceptor with improved sensitivity and durability)

RN 213967-23-8 HCA

CN 1-Pyrenamine, N-[4-[2-[4-(dimethylamino)phenyl]ethenyl]phenyl]-N-(4'-

methyl[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)



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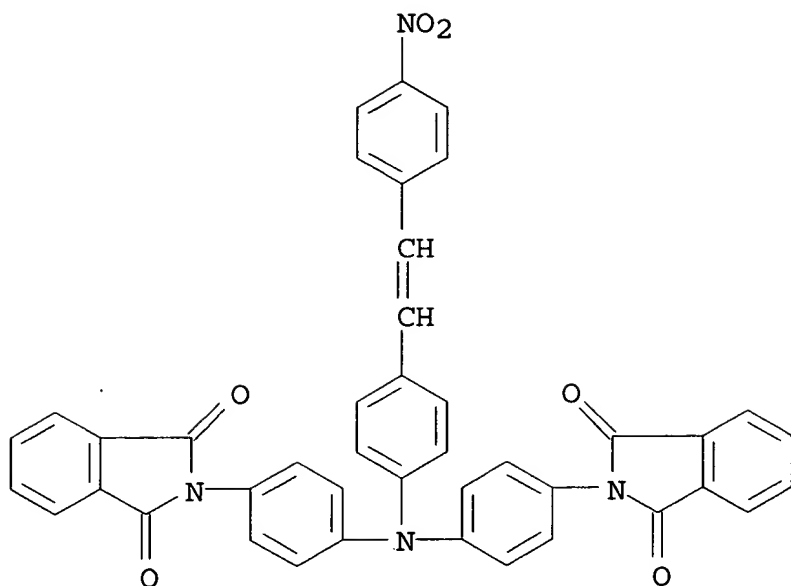
129:176305 Synthesis of polyimide possessing NLO chromophore and properties of Langmuir-Blodgett films. Jung, Cheolsoo; Jikei, Mitsutoshi; Kakimoto, Masa-aki (Department of Organic and Polymeric Materials, Tokyo Institute of Technology, Meguro-ku, Tokyo, 152-8552, Japan). Journal of Photopolymer Science and Technology, 11(2), 211-216 (English) 1998. CODEN: JSTEEW. ISSN: 0914-9244. Publisher: Technical Association of Photopolymers, Japan.

IT 211572-86-0P

(intermediate; in synthesis of monomer for prepn. of polyimide possessing side-chain nonlinear optical chromophore)

RN 211572-86-0 HCA

CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino]di-4,1-phenylene]bis- (9CI) (CA INDEX NAME)



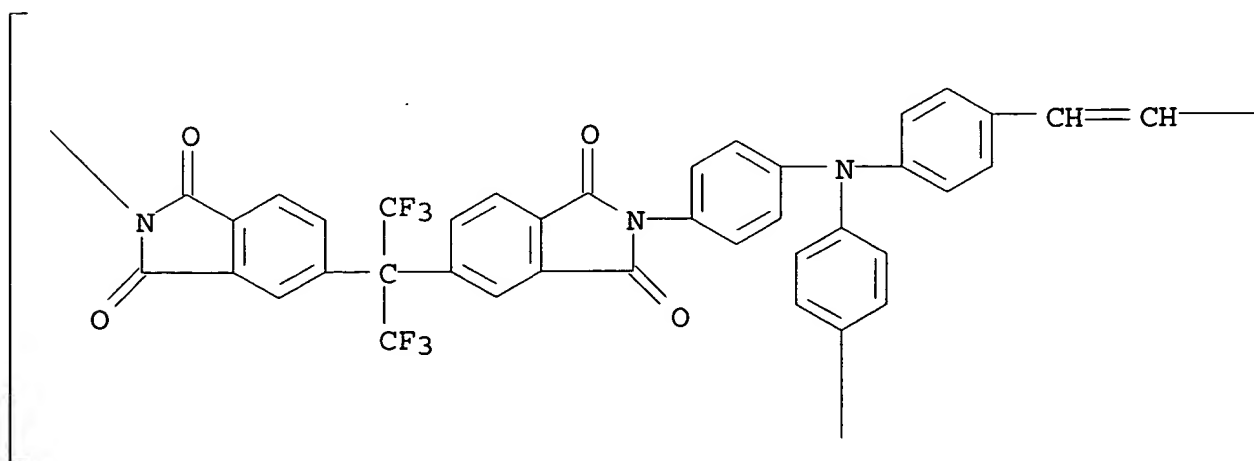
IT 211572-90-6P

(synthesis of polyimide possessing side-chain nonlinear optical chromophore and properties of its Langmuir-Blodgett films)

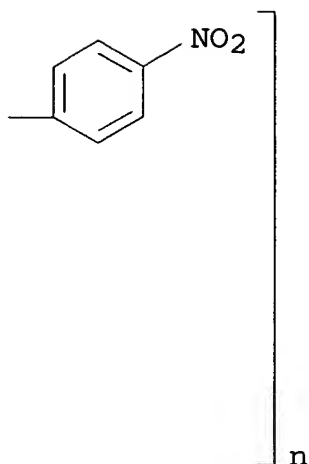
RN 211572-90-6 HCA

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl) [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene] (1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl) -1,4-phenylene[[4-[2-(4-nitrophenyl)ethenyl]phenyl]imino] -1,4-phenylene] (9CI) (CA INDEX NAME)

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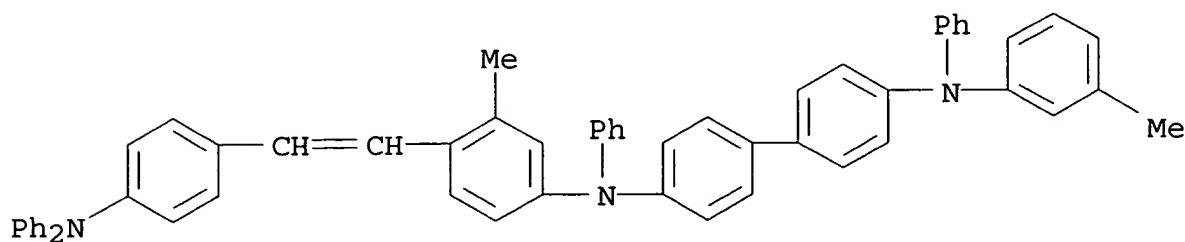
L12 ANSWER 12 OF 72 HCA COPYRIGHT 2002 ACS

128:198620 Electrophotographic photoreceptor using novel triphenylamine derivative charge-transporting agent. Tsutsui, Ayako (Fuji Electric Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10039528 A2 19980213 Heisei, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-196807 19960726.

IT 203629-84-9 203629-85-0 203629-86-1
 203629-87-2 203629-88-3 203629-89-4
 (electrophotog. photoreceptor using triphenylamine deriv.
 charge-transporting agent)

RN 203629-84-9 HCA

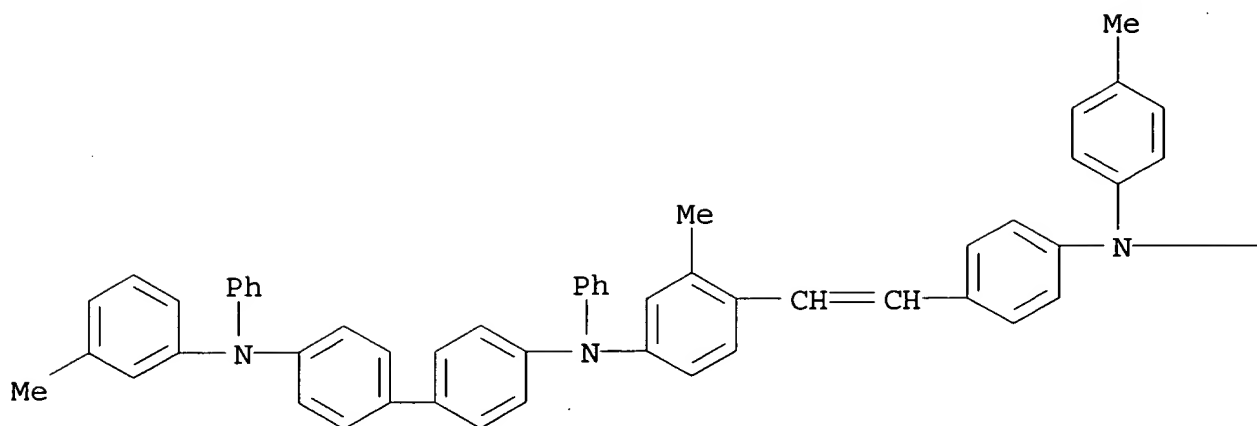
CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-[4-(diphenylamino)phenyl]ethenyl]-3-methylphenyl]-N'-(3-methylphenyl)-N,N'-diphenyl- (9CI) (CA INDEX NAME)



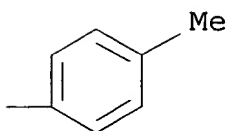
RN 203629-85-0 HCA

CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]-3-methylphenyl]-N'-(3-methylphenyl)-N,N'-diphenyl- (9CI) (CA INDEX NAME)

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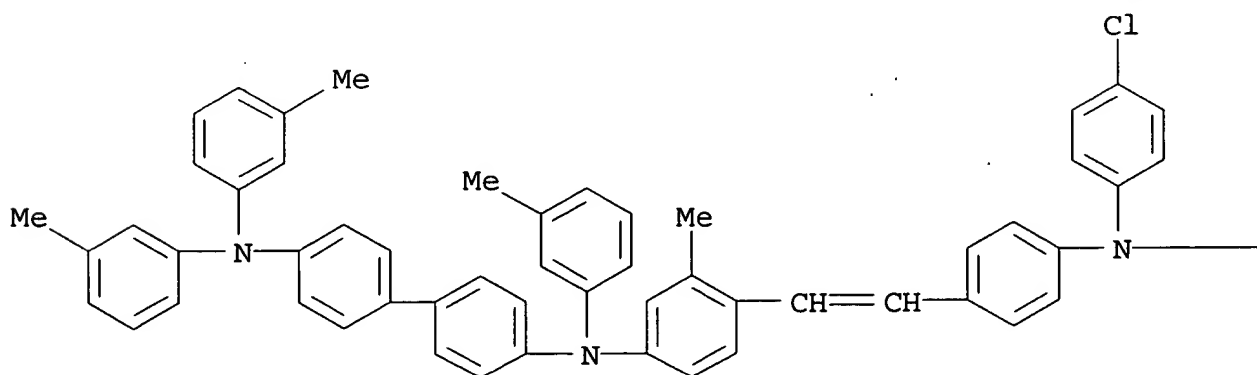


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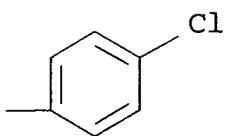


RN 203629-86-1 HCA
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-[4-[bis(4-chlorophenyl)amino]phenyl]ethenyl]-3-methylphenyl]-N,N',N'-tris(3-methylphenyl)- (9CI) (CA INDEX NAME)

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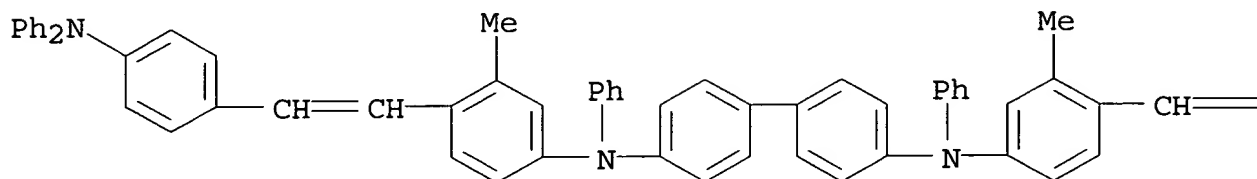


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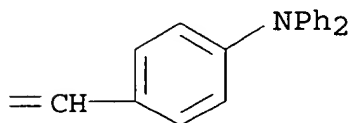


RN 203629-87-2 HCA
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2-[4-(diphenylamino)phenyl]ethenyl]-3-methylphenyl]-N,N'-diphenyl- (9CI)
 (CA INDEX NAME)

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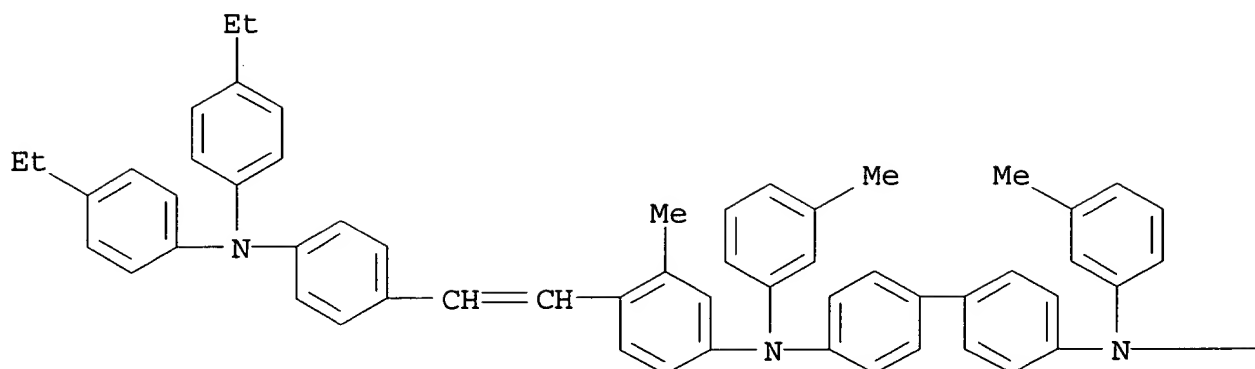


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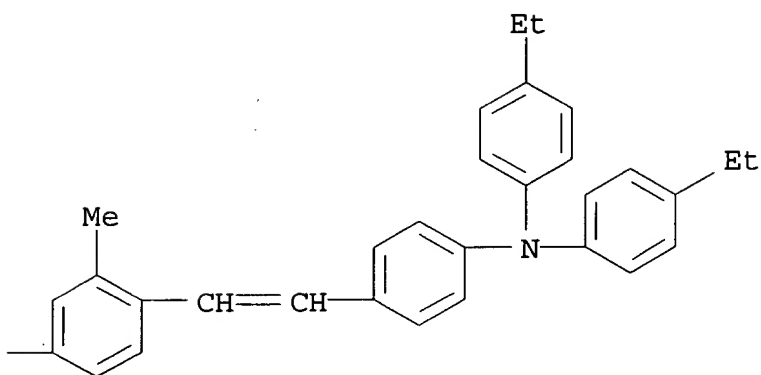


RN 203629-88-3 HCA
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2-[4-[bis(4-ethylphenyl)amino]phenyl]ethenyl]-3-methylphenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

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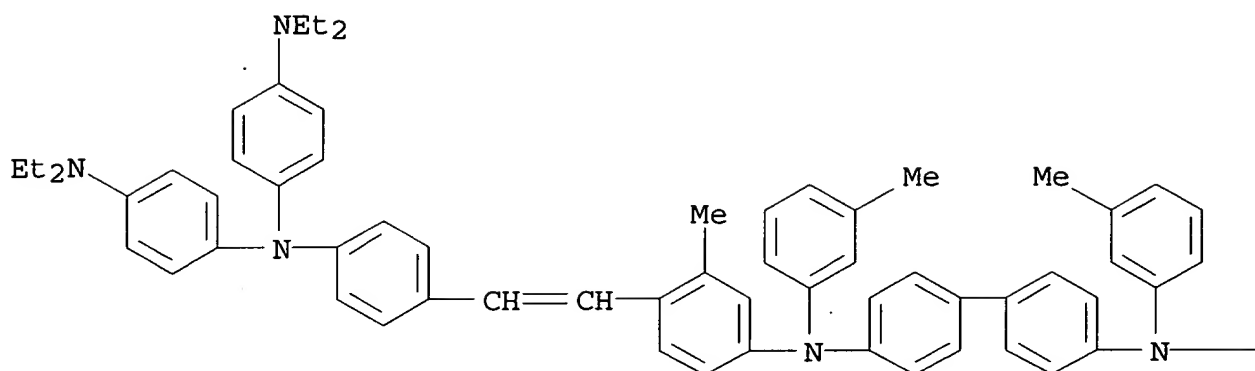


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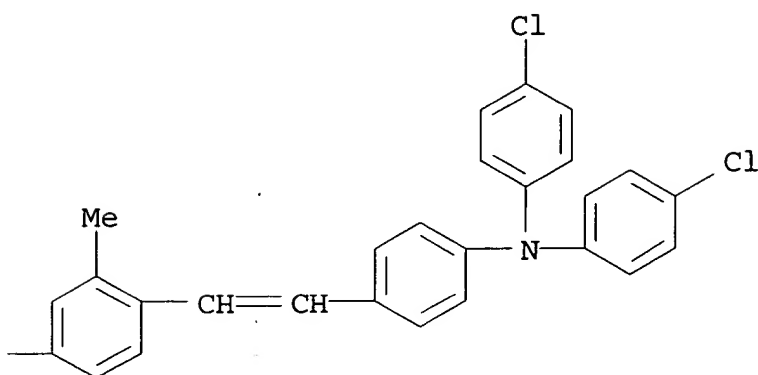


RN 203629-89-4 HCA
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-[4-[bis(4-chlorophenyl)amino]phenyl]ethenyl]-3-methylphenyl]-N'-[4-[2-[4-[bis[4-(diethylamino)phenyl]amino]phenyl]ethenyl]-3-methylphenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

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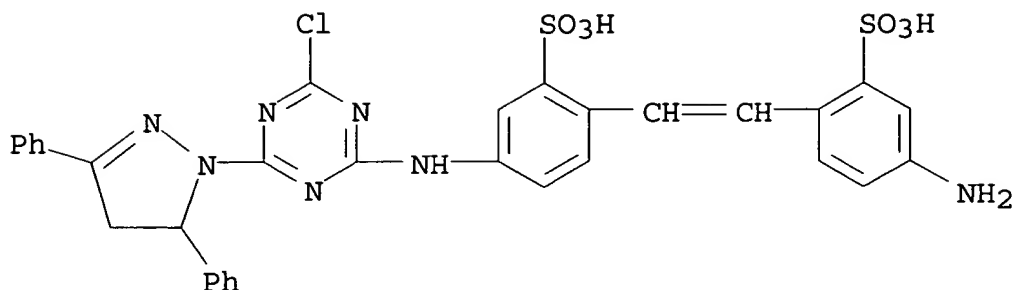
128:114665 The study of some triazinyl-.DELTA.2-pyrazolines by derivative absorption and emission spectrophotometry. II. The effects of the substituents of the s-triazine cycle upon UV absorption. Prejmereanu, Ioan; Carp, Nicoleta; Vasilescu, Marilena; Floru, Lucian; Sebe, Ion (S.C. IMEDICA, Bucharest, Rom.). Revue Roumaine de Chimie, 42(6), 461-469 (English) 1997. CODEN: RRCHAX. ISSN: 0035-3930. Publisher: Editura Academiei Romane.

IT 201798-72-3 201798-74-5 201798-75-6
201798-76-7 201798-77-8

(effects of substituents in triazine ring on UV absorption of triazinyl-.DELTA.2-pyrazolines by deriv. absorption and emission spectrophotometry)

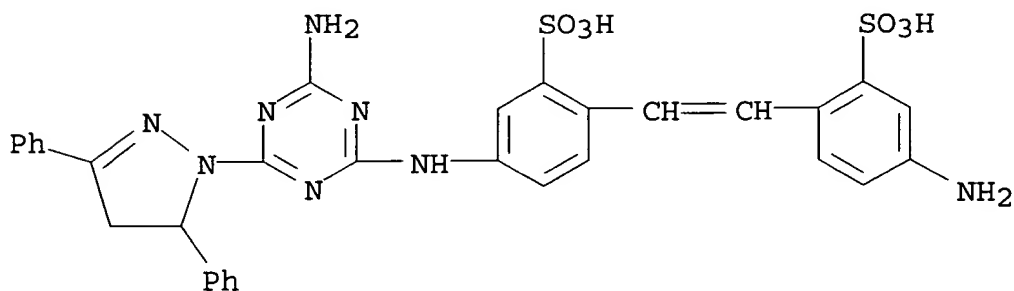
RN 201798-72-3 HCA

CN Benzenesulfonic acid, 5-amino-2-[2-[4-[[4-chloro-6-(4,5-dihydro-3,5-diphenyl-1H-pyrazol-1-yl)-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]ethenyl]- (9CI) (CA INDEX NAME)



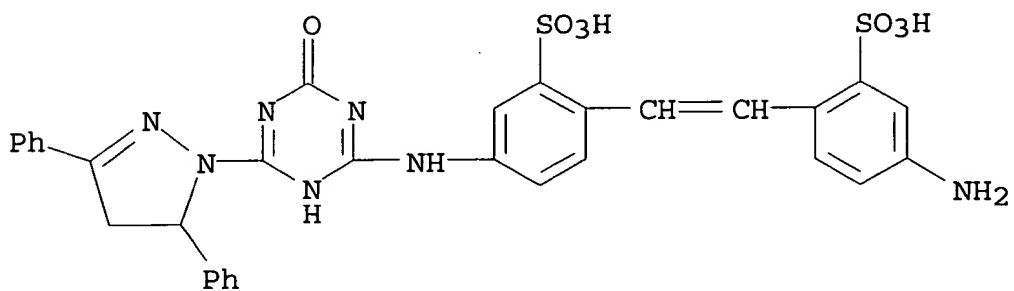
RN 201798-74-5 HCA

CN Benzenesulfonic acid, 5-amino-2-[2-[4-[[4-amino-6-(4,5-dihydro-3,5-diphenyl-1H-pyrazol-1-yl)-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]ethenyl]- (9CI) (CA INDEX NAME)



RN 201798-75-6 HCA

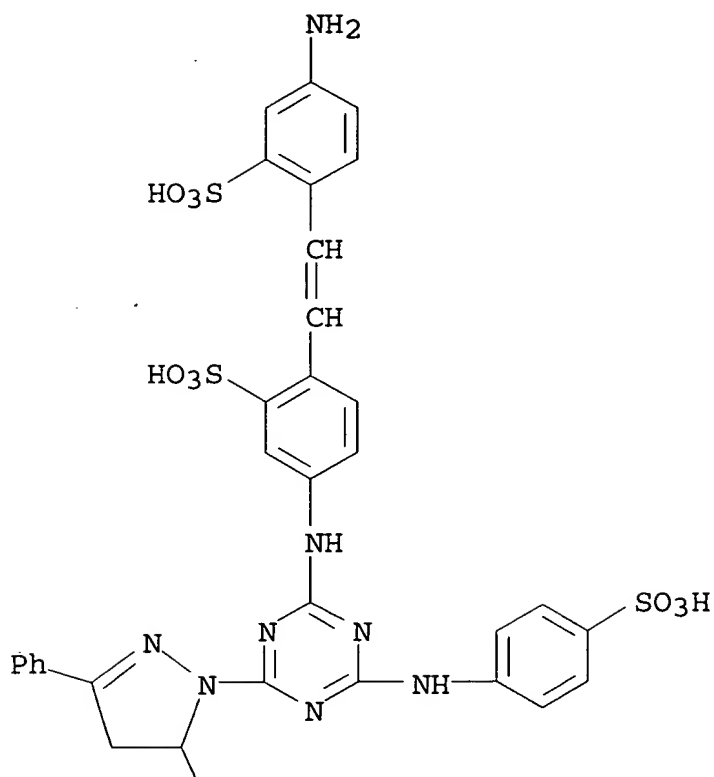
CN Benzenesulfonic acid, 5-amino-2-[2-[4-[[6-(4,5-dihydro-3,5-diphenyl-1H-pyrazol-1-yl)-1,4-dihydro-4-oxo-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]ethenyl]- (9CI) (CA INDEX NAME)



RN 201798-76-7 HCA

CN Benzenesulfonic acid, 2-[2-(4-amino-2-sulfophenyl)ethenyl]-5-[[4-(4,5-dihydro-3,5-diphenyl-1H-pyrazol-1-yl)-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)

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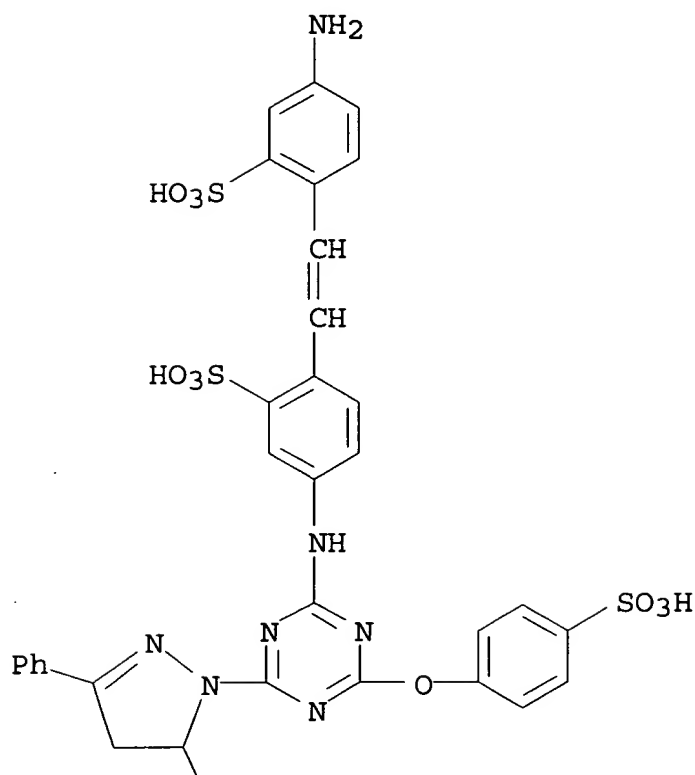


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Ph

RN 201798-77-8 HCA
 CN Benzenesulfonic acid, 2-[2-(4-amino-2-sulfophenyl)ethenyl]-5-[[4-(4,5-dihydro-3,5-diphenyl-1H-pyrazol-1-yl)-6-(4-sulfophenoxy)-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)

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$$\backslash$$

Ph

L12 ANSWER 14 OF 72 HCA COPYRIGHT 2002 ACS

128:63080 Use of triazine-based ultraviolet radiation absorbing agents for use as quenchers in papermaking processes. Rohringer, Peter; Reinehr, Dieter; Hochberg, Robert; Metzger, Georges (Ciba Specialty Chemicals Holding Inc., Switz.; Rohringer, Peter; Reinehr, Dieter; Hochberg, Robert; Metzger, Georges). PCT Int. Appl. WO 9746541 A2 19971211, 47 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1997-EP2606 19970522. PRIORITY: GB

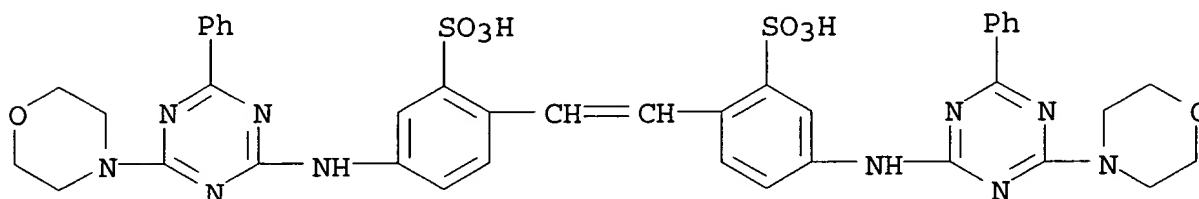
1996-11614 19960604.

IT 200394-95-2 200394-98-5 200394-99-6
 200395-00-2 200395-02-4

(triazine-based UV radiation absorbing agents for quenchers in
 papermaking)

RN 200394-95-2 HCA

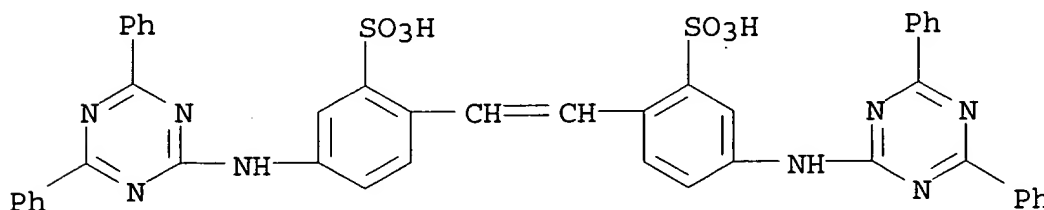
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-(4-morpholinyl)-
 6-phenyl-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX
 NAME)



● 2 Na

RN 200394-98-5 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4,6-diphenyl-
 1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)

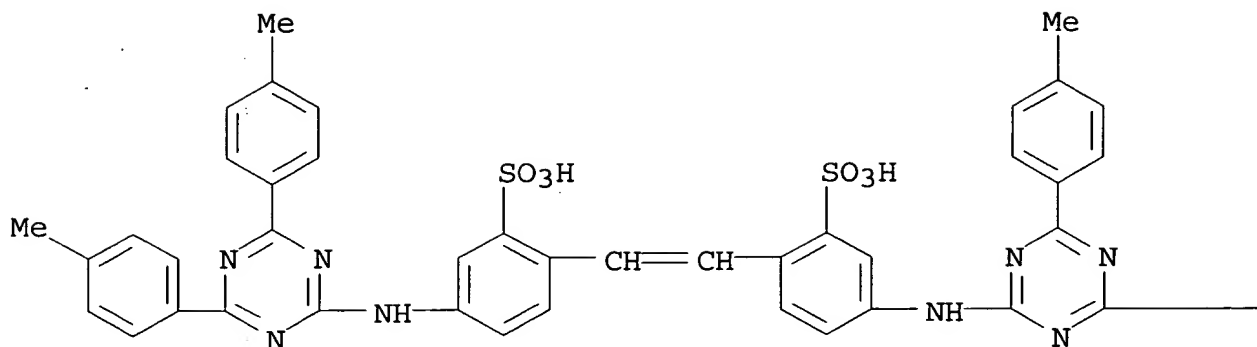


● 2 Na

RN 200394-99-6 HCA

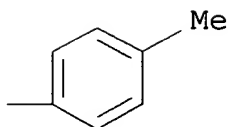
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4,6-bis(4-
 methylphenyl)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA
 INDEX NAME)

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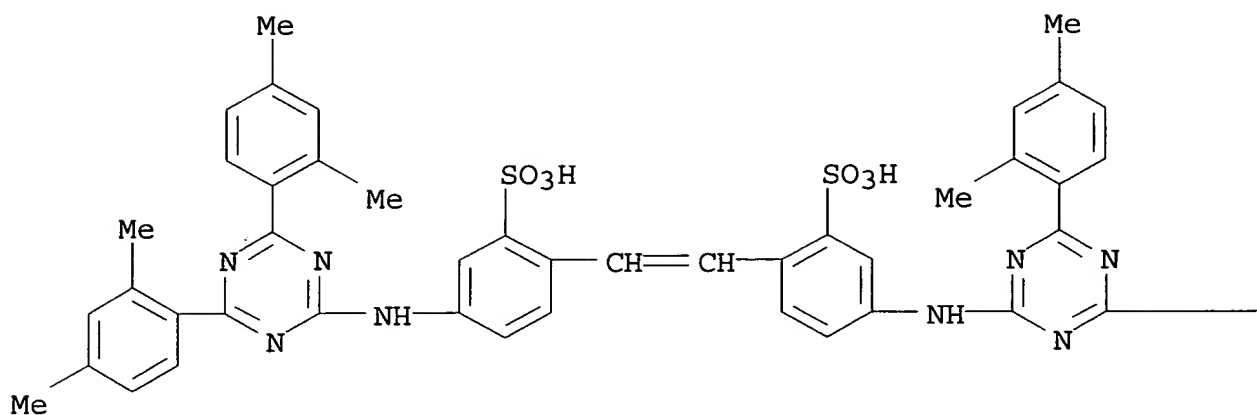
● 2 Na

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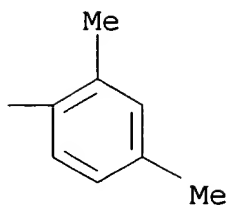
RN 200395-00-2 HCA
 CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4,6-bis(2,4-dimethylphenyl)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)

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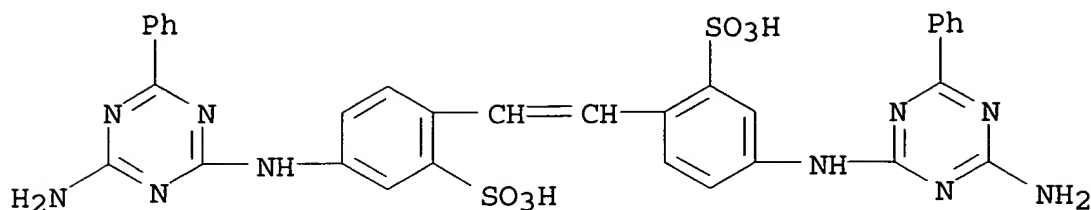


● 2 Na

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RN 200395-02-4 HCA
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[(4-amino-6-phenyl-1,3,5-triazin-2-yl)amino]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L12 ANSWER 15 OF 72 HCA COPYRIGHT 2002 ACS

127:191878 Dyeing and printing natural and regenerated cellulose fiber blends with reactive dyes in identical shades. Moriwaki, Toshikazu; Harada, Naoki; Yokogawa, Kazufumi; Tsukise, Bunji (Sumitomo Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09195181 A2 19970729 Heisei, 29 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-25888 19960118.

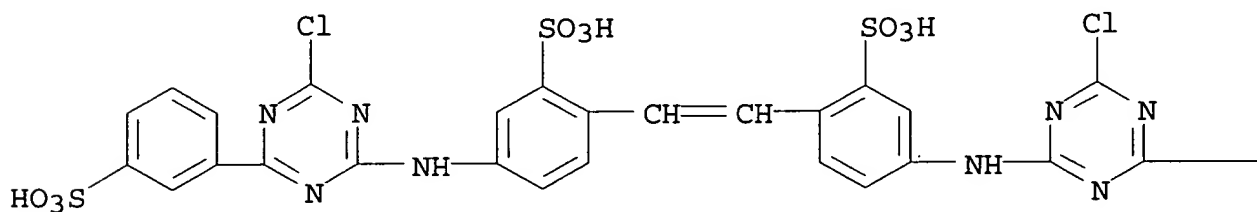
IT 194367-02-7

(dyeing and printing natural and regenerated cellulose fiber blends with reactive dyes in identical shades)

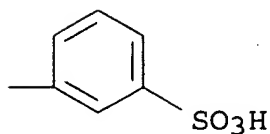
RN 194367-02-7 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-chloro-6-(3-sulfophenyl)-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)

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L12 ANSWER 16 OF 72 HCA COPYRIGHT 2002 ACS

125:250378 Triazinylstilbene derivatives, their preparation and use.
 Reinehr, Dieter; Eckhardt, Claude; Hochberg, Robert; Kaufmann,
 Werner; Metzger, Georges (Ciba-Geigy A.-G., Switz.). Eur. Pat.
 Appl. EP 728749 A2 19960828, 21 pp. DESIGNATED STATES: R: BE, CH,
 DE, ES, FR, GB, IT, LI, NL. (English). CODEN: EPXXDW.
 APPLICATION: EP 1996-810086 19960213. PRIORITY: GB 1995-3474
 19950222.

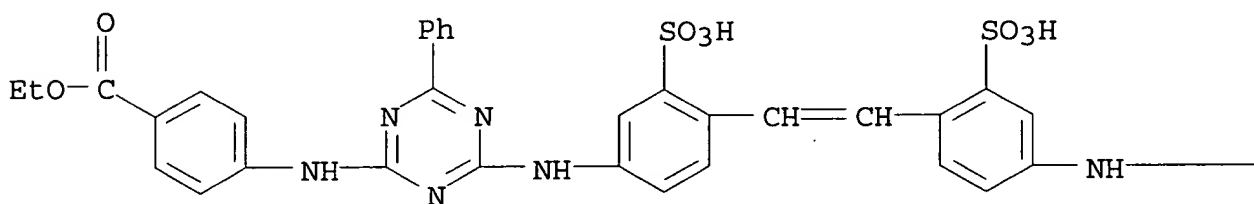
IT 182188-10-9P

(prepn. of triazinyl stilbene derivs. as UV absorbers and
 fluorescent brighteners)

RN 182188-10-9 HCA

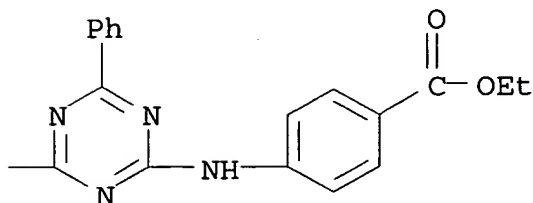
CN Benzoic acid, 4,4'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino(6-
 phenyl-1,3,5-triazine-4,2-diyl)imino]]bis-, 1,1'-diethyl ester,
 disodium salt (9CI) (CA INDEX NAME)

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● 2 Na

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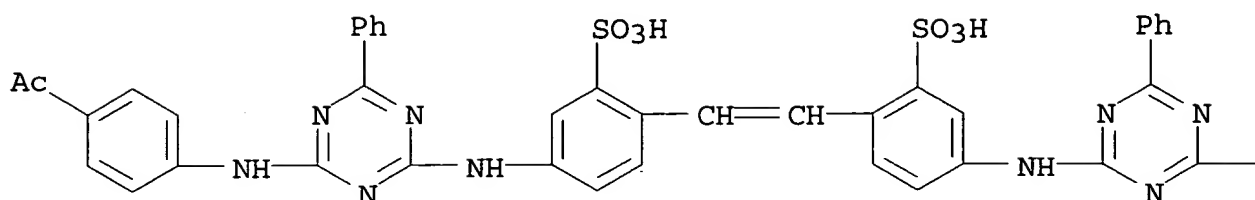
IT 182188-11-0P

(prepn. of triazinyl stilbene derivs. as UV absorbers and
 fluorescent brighteners)

RN 182188-11-0 HCA

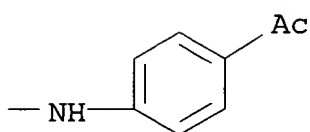
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[(4-
 acetylphenyl)amino]-6-phenyl-1,3,5-triazin-2-yl]amino]-, disodium
 salt (9CI) (CA INDEX NAME)

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● 2 Na

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L12 ANSWER 17 OF 72 HCA COPYRIGHT 2002 ACS

123:241968 Electrophotographic photoreceptors. Tanaka, Chiaki; Sasaki, Masaomi; Ariga, Tamotsu; Shimada, Tomoyuki (Ricoh Kk, Japan). Jpn. Kokai Tokkyo Koho JP 07175238 A2 19950714 Heisei, 37 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-110451 19940426.

PRIORITY: JP 1993-168522 19930615; JP 1993-291302 19931027.

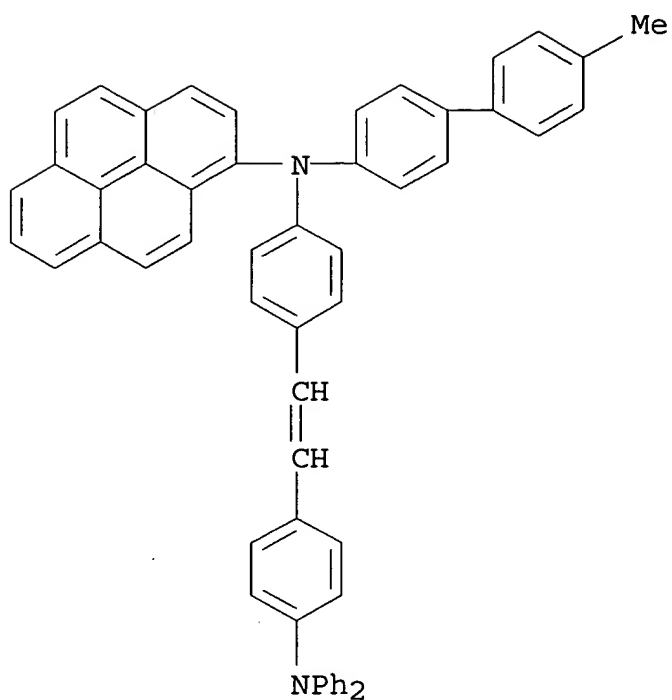
IT 168638-29-7 168638-47-9 168638-59-3

168638-70-8

(electrophotog. photoreceptors contg. pyrenylolfin
charge-transfer materials)

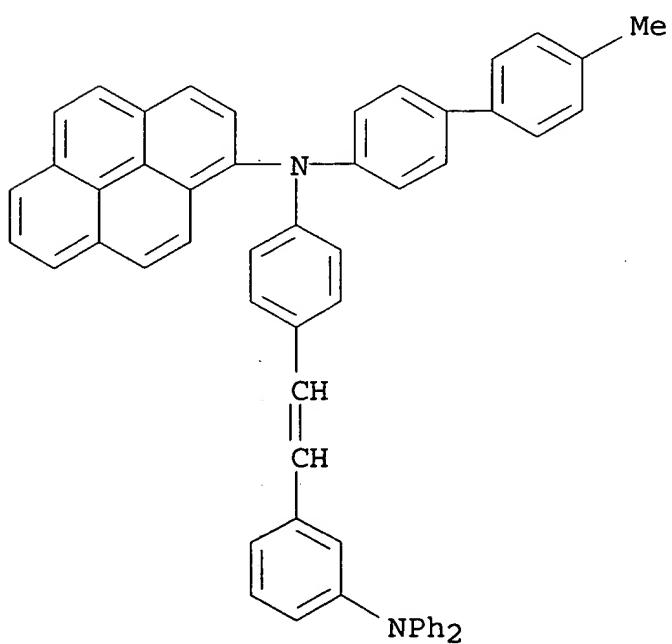
RN 168638-29-7 HCA

CN 1-Pyrenamine, N-[4-[2-[4-(diphenylamino)phenyl]ethenyl]phenyl]-N-(4'-methyl[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)



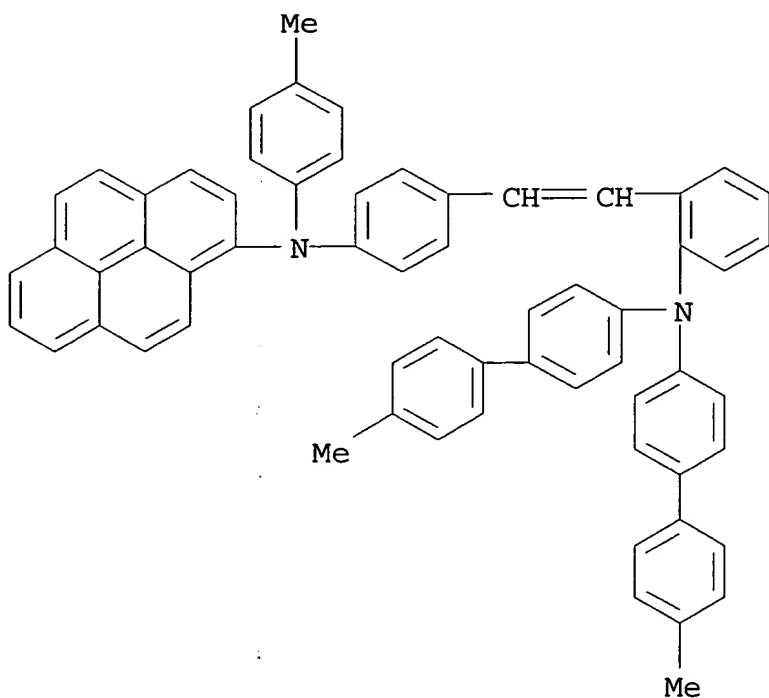
RN 168638-47-9 HCA

CN 1-Pyrenamine, N-[4-[2-[3-(diphenylamino)phenyl]ethenyl]phenyl]-N-(4'-methyl[1,1'-biphenyl]-4-yl) - (9CI) (CA INDEX NAME)



RN 168638-59-3 HCA

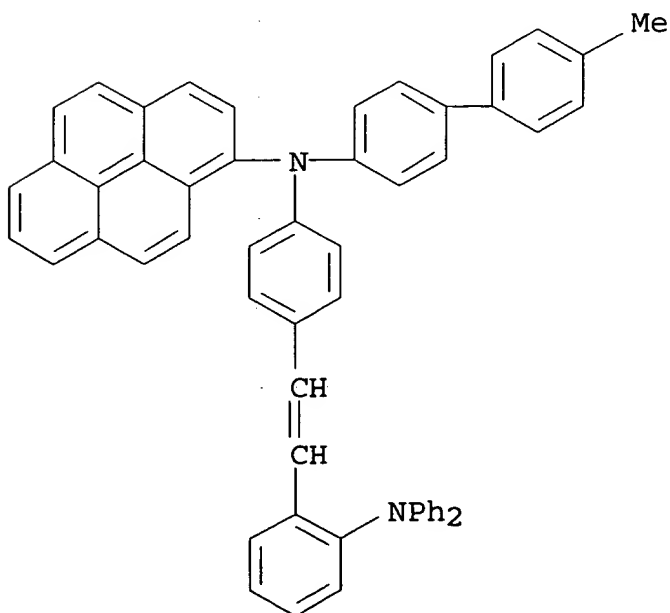
CN 1-Pyrenamine, N-[4-[2-[2-[bis(4'-methyl[1,1'-biphenyl]-4-yl)amino]phenyl]ethenyl]phenyl]-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)



(not EL though)

RN 168638-70-8 HCA

CN 1-Pyrenamine, N-[4-[2-[2-(diphenylamino)phenyl]ethenyl]phenyl]-N-(4'-methyl[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)



L12 ANSWER 18 OF 72 HCA COPYRIGHT 2002 ACS

123:198746 Syntheses of s-triazine-.DELTA.2-pyrazolines. IV. Aminoalkoxy and aminoaryloxy s-triazine-.DELTA.2-pyrazolines. Prejmereanu, Ioan; Sebe, Ion; Floru, Lucian (Bucharest, Rom.). Revista de Chimie (Bucharest), 46(1), 5-12 (Romanian) 1995. CODEN: RCBUAU. ISSN: 0034-7752. Publisher: CHIMINFORM DATA.

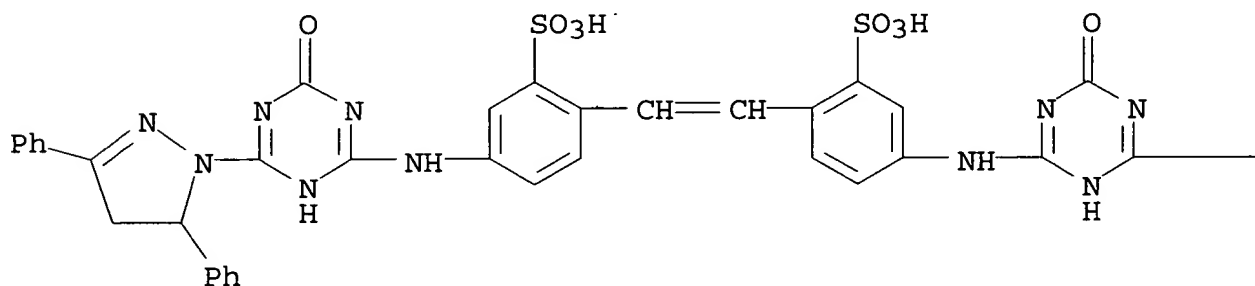
IT 167564-23-0P 167564-24-1P

(prepn. of aminoalkoxy and aminoaryloxy s-triazine-.DELTA.2-pyrazolines)

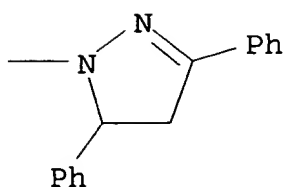
RN 167564-23-0 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[6-(4,5-dihydro-3,5-diphenyl-1H-pyrazol-1-yl)-1,4-dihydro-4-oxo-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)

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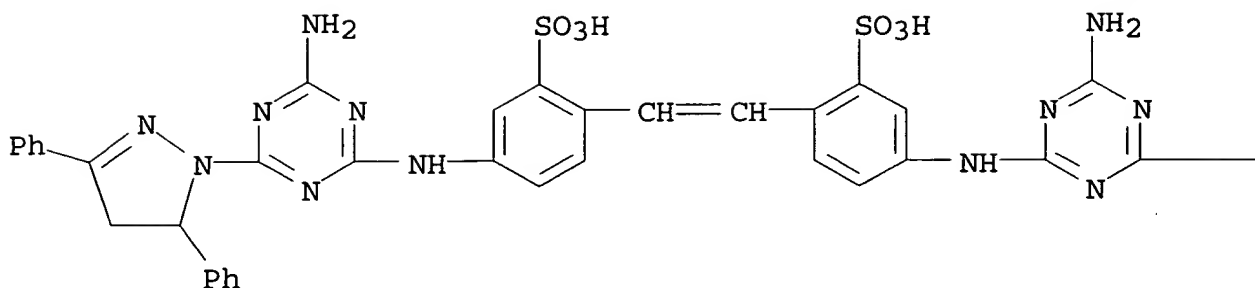
PAGE 1-B



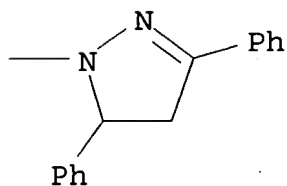
RN 167564-24-1 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-amino-6-(4,5-dihydro-3,5-diphenyl-1H-pyrazol-1-yl)-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)

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L12 ANSWER 19 OF 72 HCA COPYRIGHT 2002 ACS

122:81318 Synthesis and second-harmonic generation properties of 2-(4-nitroanilino)-1,3,5-triazine derivatives. Yonehara, Hisatomo; Kang, Wen-Bing; Kawara, Tatsuo; Pac, Chyongjin (Kawamura Institute of Chemical Research, Chiba, 285, Japan). Journal of Materials Chemistry, 4(10), 1571-7 (English) 1994. CODEN: JMACEP. ISSN: 0959-9428.

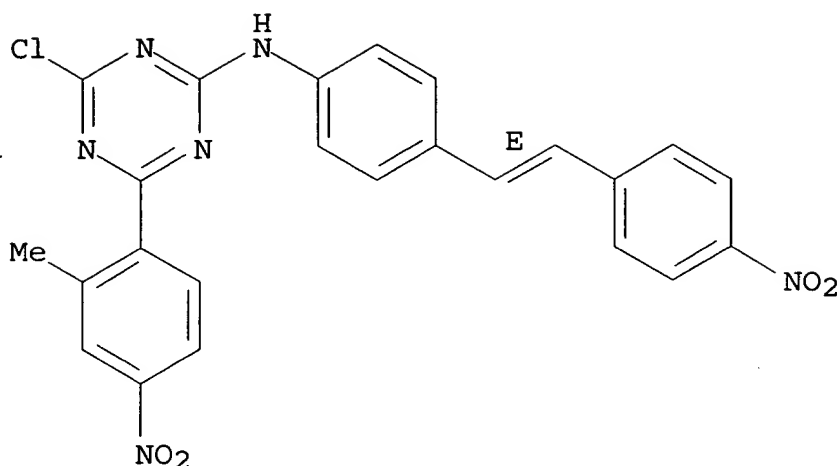
IT 160414-65-3P

(synthesis and second-harmonic generation properties of (nitroanilino)triazines)

RN 160414-65-3 HCA

CN 1,3,5-Triazin-2-amine, 4-chloro-6-(2-methyl-4-nitrophenyl)-N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown..



L12 ANSWER 20 OF 72 HCA COPYRIGHT 2002 ACS

122:31468 Syntheses of s-triazine-.DELTA.2-pyrazolines. II. Reaction of dichloro-s-triazine-.DELTA.2-pyrazoline with amines. Prejmereanu, Ioan; Sebe, Ion; Floru, Lucian (Univ. Politehnica, Bucharest, Rom.). Revistade Chimie (Bucharest, Romania), 45(7), 554-9 (Romanian) 1994. CODEN: RCBUAU. ISSN: 0034-7752.

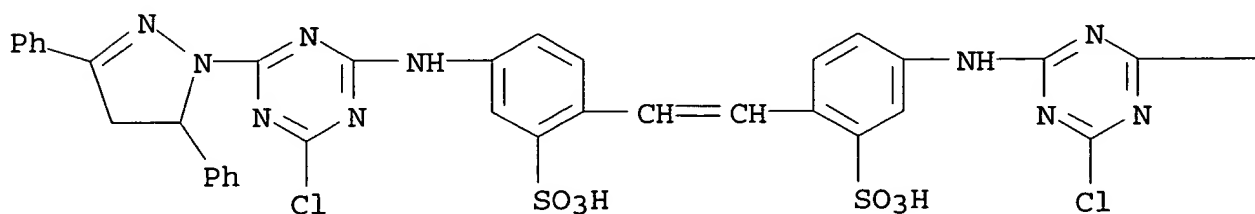
IT 159638-42-3P

(prepn. of s-triazine-.DELTA.2-pyrazolines)

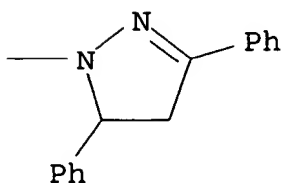
RN 159638-42-3 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-chloro-6-(4,5-dihydro-3,5-diphenyl-1H-pyrazol-1-yl)-1,3,5-triazin-2-yl]amino]-(9CI) (CA INDEX NAME)

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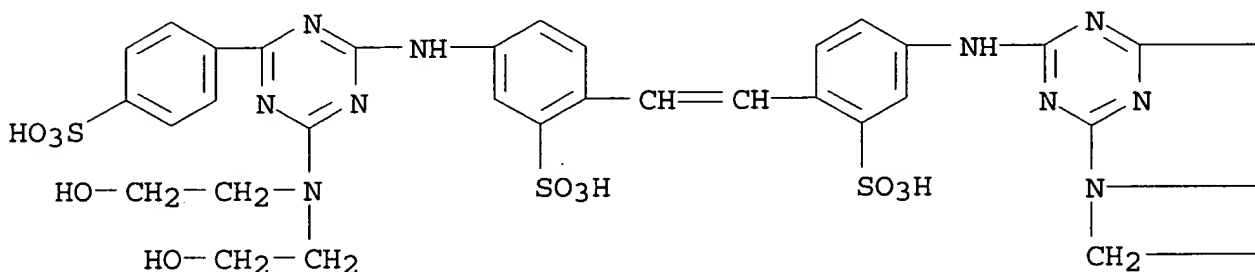
121:241579 Solid photographic color developer and processing method for silver halide photographic material. Koma, Kyoko (Konishiroku Photo Ind, Japan). Jpn. Kokai Tokkyo Koho JP 06003787 A2 19940114 Heisei, 40 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-184615 19920618.

IT 92466-48-3
(solid photog. developer contg.)

RN 92466-48-3 HCA

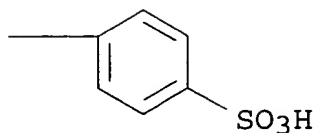
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

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● 4 Na

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— CH₂— CH₂— OH

— CH₂— OH

L12 ANSWER 22 OF 72 HCA COPYRIGHT 2002 ACS

121:233061 Micellar effects on photostabilization of 4,4'-diaminostilbene-2,2'-disulfonate derivatives. Seguchi, Kazuyoshi; Tanaka, Satoko; Ebara, Yoshiko; Yoshida, Junko; Hashimoto, Reiko (Fac. Home Econ., Mukogawa Women's Univ.,

Nishinomiya, 663, Japan). Trends in Organic Chemistry, 1, 165-71 (English) 1990. CODEN: TORCEU.

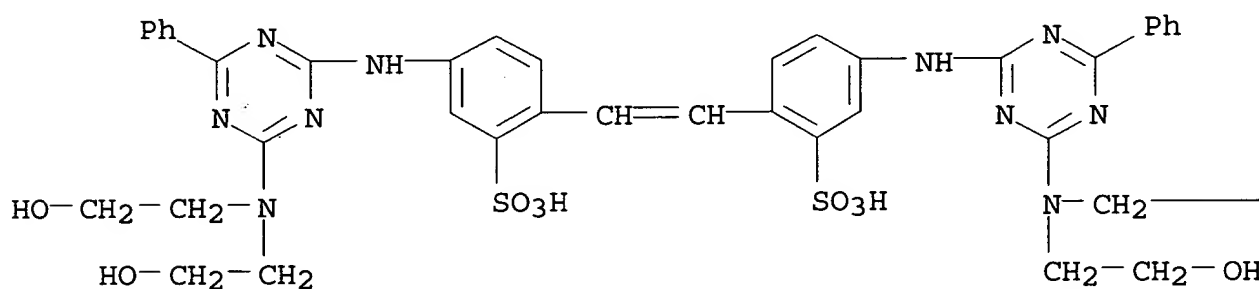
IT 132037-59-3

(photostabilization and isomerization of, surfactant micelle effect on)

RN 132037-59-3 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-phenyl-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)

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● 2 Na

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— CH₂— OH

L12 ANSWER 23 OF 72 HCA COPYRIGHT 2002 ACS

121:57537 Preparation of triazine derivatives as nonlinear optical materials. Kawahara, Tatsuro; Yonehara, Yoshitomo; Ko, Bunhei; Shimizu, Mieko; Boku, Shoshin (Kawamura Rikagaku Kenkyusho, Japan). Jpn. Kokai Tokkyo Koho JP 06065217 A2 19940308 Heisei, 25 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-122288 19920514.

IT 155874-61-6P 155874-62-7P 155932-80-2P

155932-81-3P 155932-82-4P 155932-83-5P

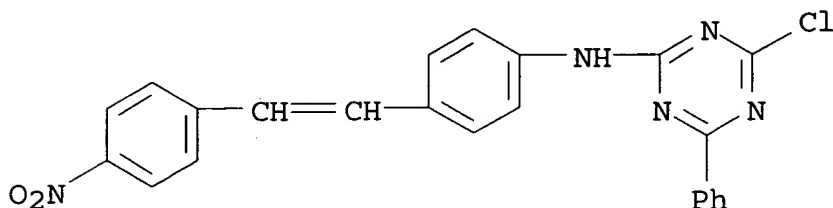
155932-84-6P 155932-85-7P 155932-86-8P

155932-87-9P 155932-88-0P

(prepn. of, as nonlinear optical material)

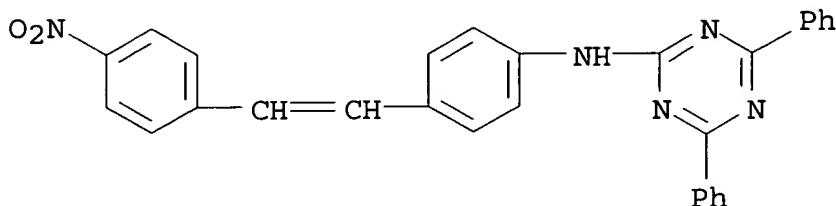
RN 155874-61-6 HCA

CN 1,3,5-Triazin-2-amine, 4-chloro-N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]-6-phenyl- (9CI) (CA INDEX NAME)



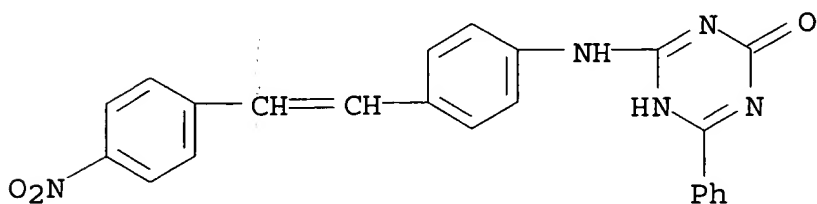
RN 155874-62-7 HCA

CN 1,3,5-Triazin-2-amine, N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]-4,6-diphenyl- (9CI) (CA INDEX NAME)



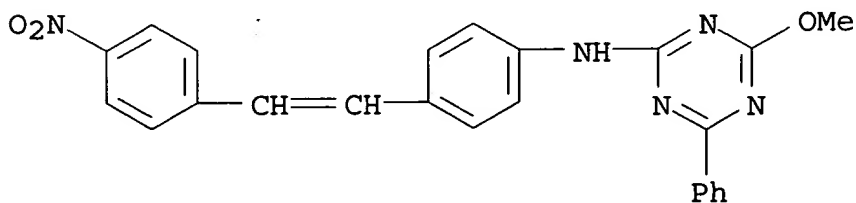
RN 155932-80-2 HCA

CN 1,3,5-Triazin-2(1H)-one, 4-[[4-[2-(4-nitrophenyl)ethenyl]phenyl]amino]-6-phenyl- (9CI) (CA INDEX NAME)



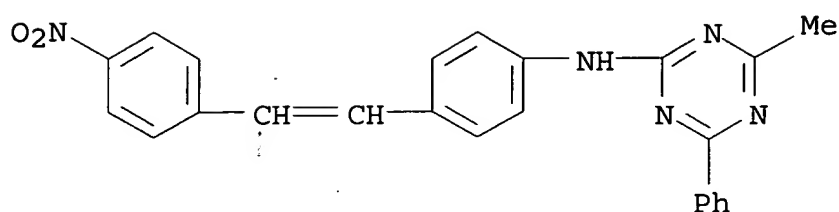
RN 155932-81-3 HCA

CN 1,3,5-Triazin-2-amine, 4-methoxy-N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]-6-phenyl- (9CI) (CA INDEX NAME)



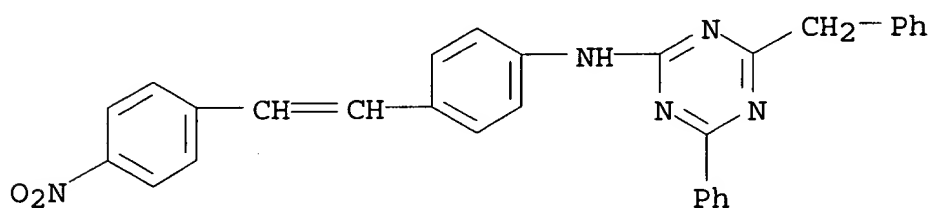
RN 155932-82-4 HCA

CN 1,3,5-Triazin-2-amine, 4-methyl-N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]-6-phenyl- (9CI) (CA INDEX NAME)



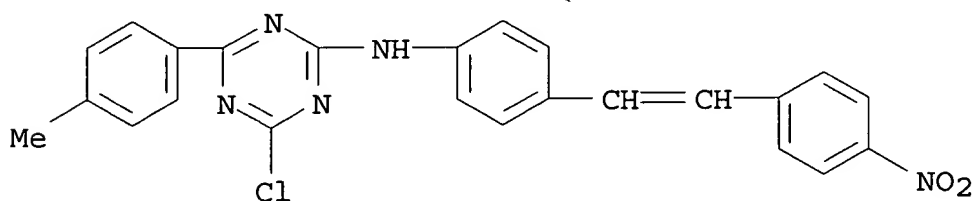
RN 155932-83-5 HCA

CN 1,3,5-Triazin-2-amine, N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]-4-phenyl-6-(phenylmethyl)- (9CI) (CA INDEX NAME)



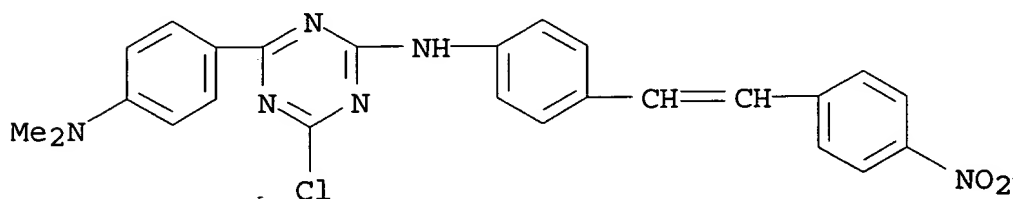
RN 155932-84-6 HCA

CN 1,3,5-Triazin-2-amine, 4-chloro-6-(4-methylphenyl)-N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]- (9CI) (CA INDEX NAME)



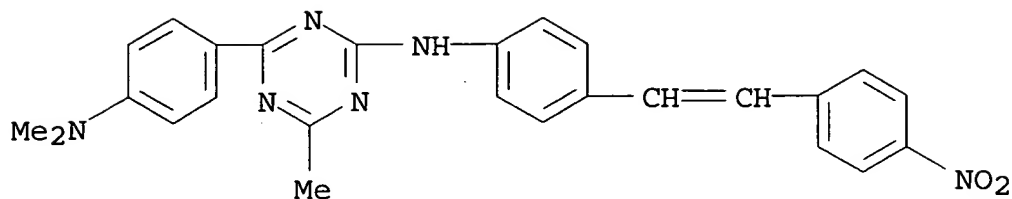
RN 155932-85-7 HCA

CN 1,3,5-Triazin-2-amine, 4-chloro-6-[4-(dimethylamino)phenyl]-N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]- (9CI) (CA INDEX NAME)

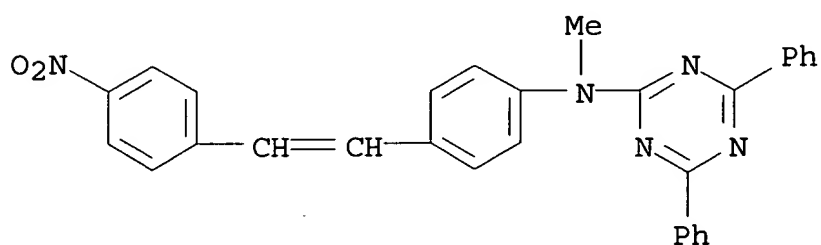


RN 155932-86-8 HCA

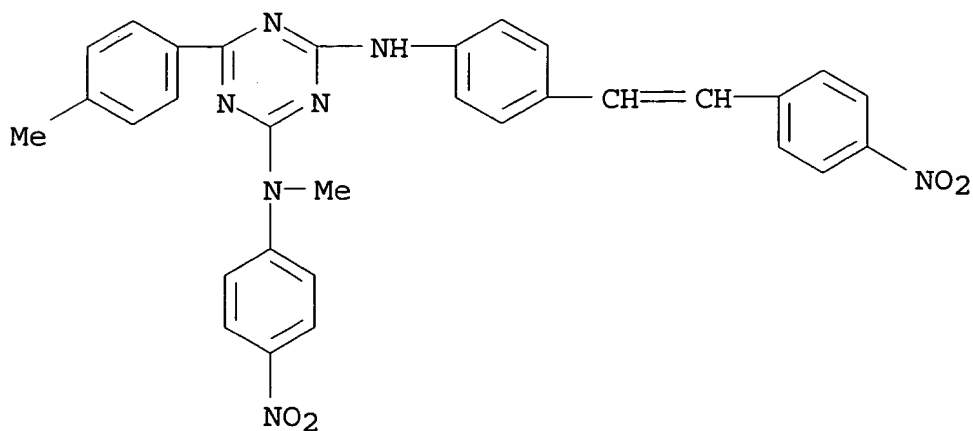
CN 1,3,5-Triazin-2-amine, 4-[4-(dimethylamino)phenyl]-6-methyl-N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]- (9CI) (CA INDEX NAME)



RN 155932-87-9 HCA
 CN 1,3,5-Triazin-2-amine, N-methyl-N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]-4,6-diphenyl- (9CI) (CA INDEX NAME)

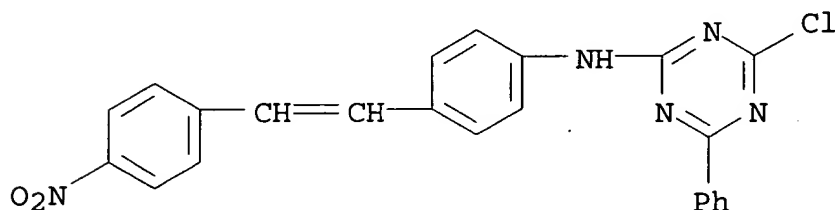


RN 155932-88-0 HCA
 CN 1,3,5-Triazine-2,4-diamine, N-methyl-6-(4-methylphenyl)-N-(4-nitrophenyl)-N'-[4-[2-(4-nitrophenyl)ethenyl]phenyl]- (9CI) (CA INDEX NAME)

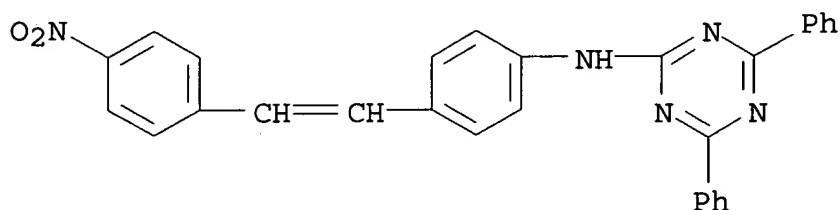


L12 ANSWER 24 OF 72 HCA COPYRIGHT 2002 ACS
 121:22052 Nonlinear optical waveguide device and nonlinear optical material therefor. Ko, Bunpei; Kawahara, Tatsuro; Yonehara, Yoshitomo; Shimizu, Mieko; Boku, Shoshin (Kawamura Rikagaku Kenkyusho, Japan). Jpn. Kokai Tokkyo Koho JP 06011747 A2 19940121 Heisei, 65 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-122289 19920514. PRIORITY: JP 1991-109421 19910514.

IT 155874-61-6 155874-62-7
(nonlinear optical waveguide device from)
RN 155874-61-6 HCA
CN 1,3,5-Triazin-2-amine, 4-chloro-N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]-6-phenyl- (9CI) (CA INDEX NAME)



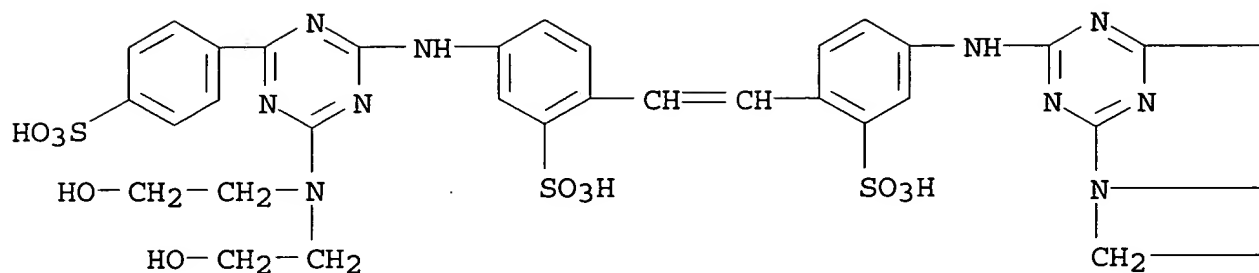
RN 155874-62-7 HCA
CN 1,3,5-Triazin-2-amine, N-[4-[2-(4-nitrophenyl)ethenyl]phenyl]-4,6-diphenyl- (9CI) (CA INDEX NAME)



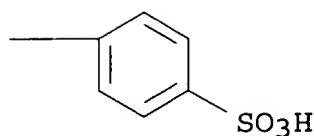
L12 ANSWER 25 OF 72 HCA COPYRIGHT 2002 ACS
118:112904 Silver halide photographic material. Hirabayashi, Shigeto; Yamazaki, Chikamasa; Asatake, Atsushi; Nagaoka, Yoko (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 04240847 A2 19920828 Heisei, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1991-23838 19910125.

IT 146119-97-3
(fluorescent brightener, for photog. materials)
RN 146119-97-3 HCA
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— CH₂— CH₂— OH— CH₂— OH

L12 ANSWER 26 OF 72 HCA COPYRIGHT 2002 ACS

117:242641 Silver halide photographic material. Hioki, Takanori; Kato, Takashi; Ikeda, Tadashi; Oshima, Naoto (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 04146428 A2 19920520 Heisei, 54 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-270161 19901008.

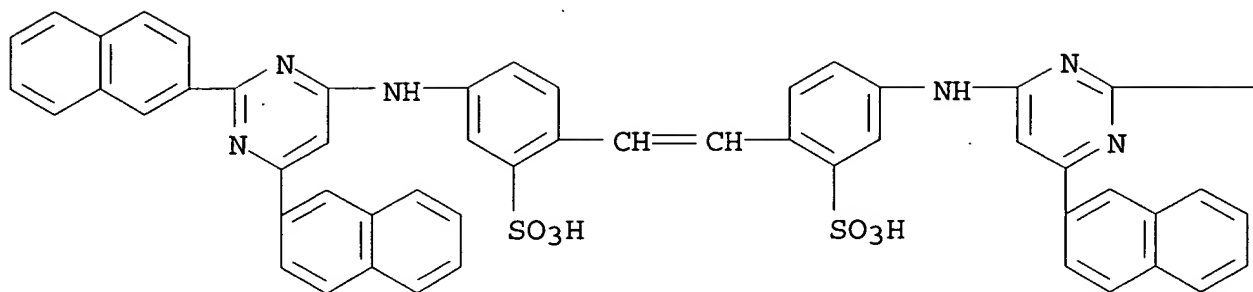
IT 144577-18-4

(photog. materials contg.)

RN 144577-18-4 HCA

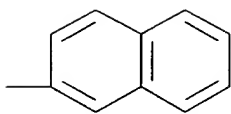
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[(2,6-di-2-naphthalenyl)-4-pyrimidinyl]amino]-, disodium salt (9CI) (CA INDEX NAME)

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● 2 Na

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L12 ANSWER 27 OF 72 HCA COPYRIGHT 2002 ACS

117:100898 Silver halide photographic material giving excellent color reproduction. Hirabayashi, Shigeto; Yamazaki, Chikamasa; Asatake, Atsushi (Konica K. K., Japan). Jpn. Kokai Tokkyo Koho JP 04097349 A2 19920330 Heisei, 17 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1990-214282 19900815.

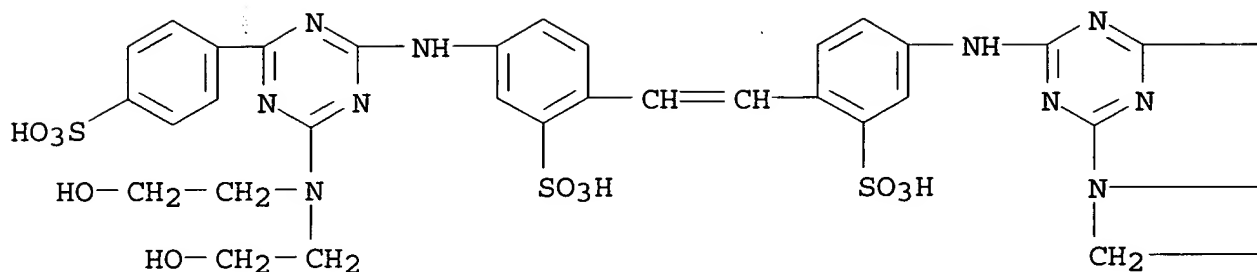
IT 92466-48-3

(fluorescent brightener, for photog. materials)

RN 92466-48-3 HCA

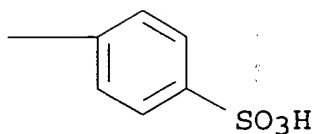
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 4 Na

PAGE 1-B

— CH₂— CH₂— OH— CH₂— OH

L12 ANSWER 28 OF 72 HCA COPYRIGHT 2002 ACS

116:237364 Reactive pyridone azo dyes, their preparation and use.

Ridyard, Denis Robert Annesley (Imperial Chemical Industries PLC, UK). Eur. Pat. Appl. EP 471454 A1 19920219, 17 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE.

(English). CODEN: EPXXDW. APPLICATION: EP 1991-306588 19910719.

PRIORITY: GB 1990-17869 19900815.

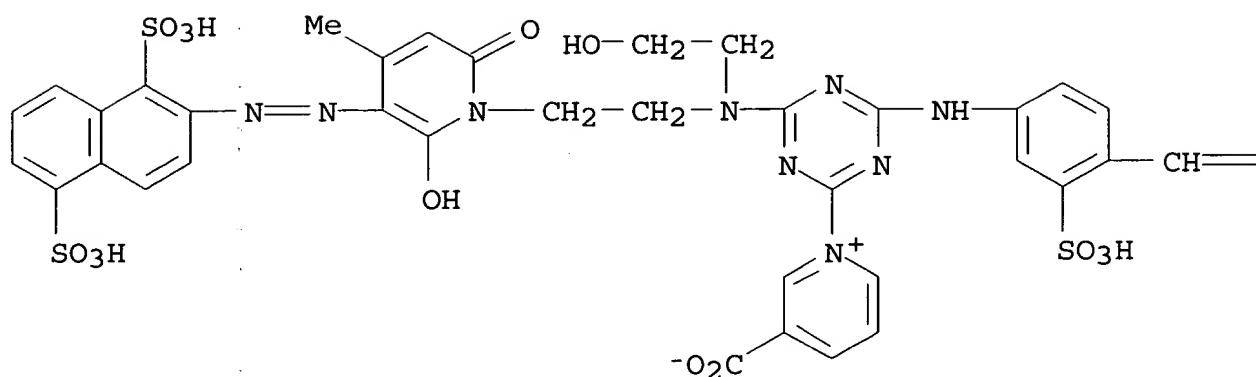
IT 141281-48-3 141281-49-4 141281-50-7

(prepn. of mixts. contg., as yellow dyes for cellulosic fibers)

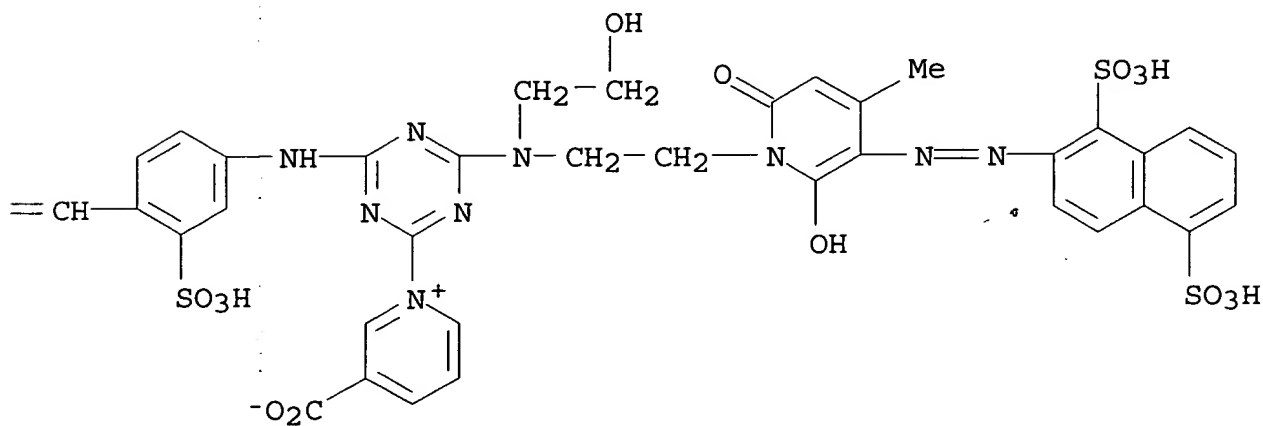
RN 141281-48-3 HCA

CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[[2-[5-[(1,5-disulfo-2-naphthalenyl)azo]-6-hydroxy-4-methyl-2-oxo-1(2H)-pyridinyl]ethyl](2-hydroxyethyl)amino]-1,3,5-triazine-4,2-diyl]]]bis[3-carboxy-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A

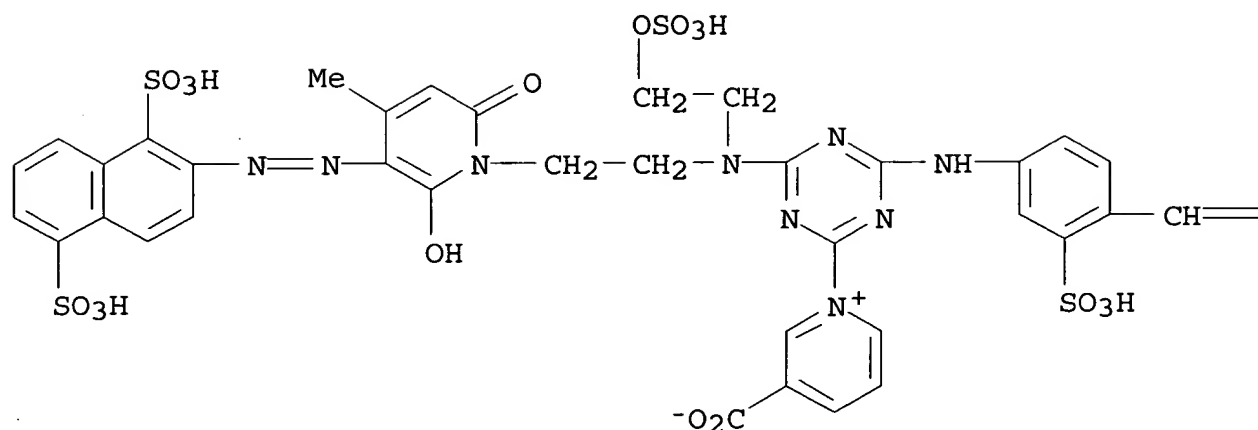


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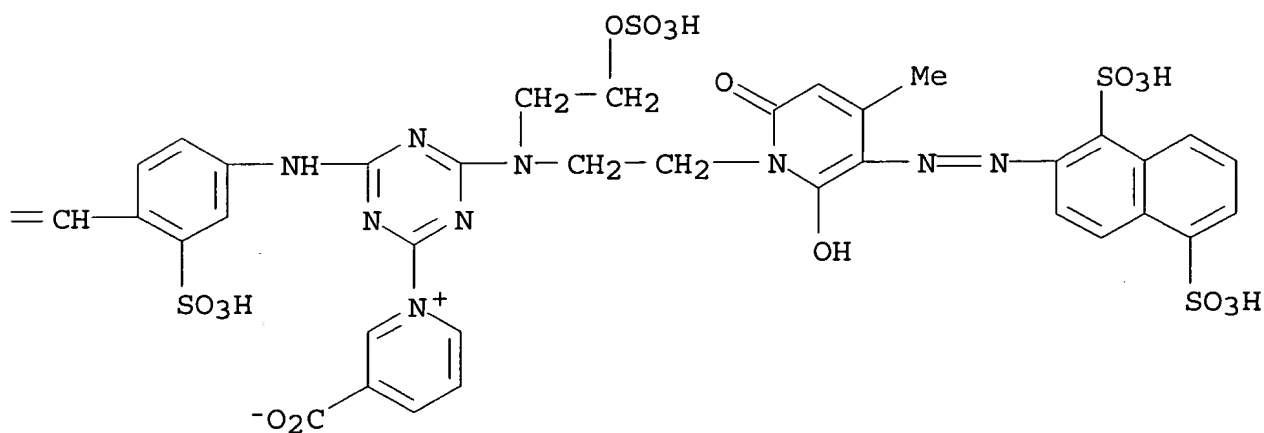


RN 141281-49-4 HCA
 CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[2-[5-[(1,5-disulfo-2-naphthalenyl)azo]-6-hydroxy-4-methyl-2-oxo-
 1(2H)-pyridinyl]ethyl][2-(sulfooxy)ethyl]amino]-1,3,5-triazine-4,2-
 diyl]]]bis[3-carboxy-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A

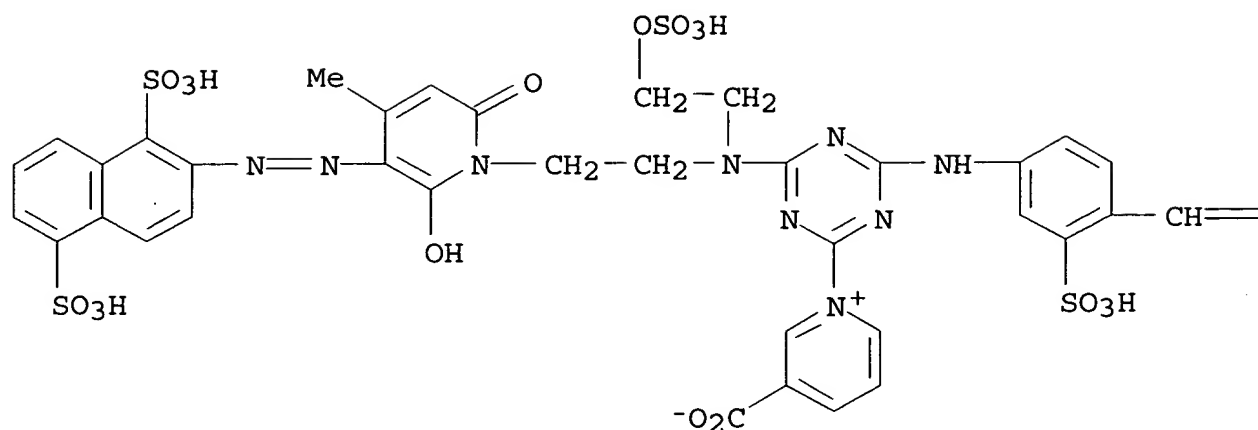


PAGE 1-B

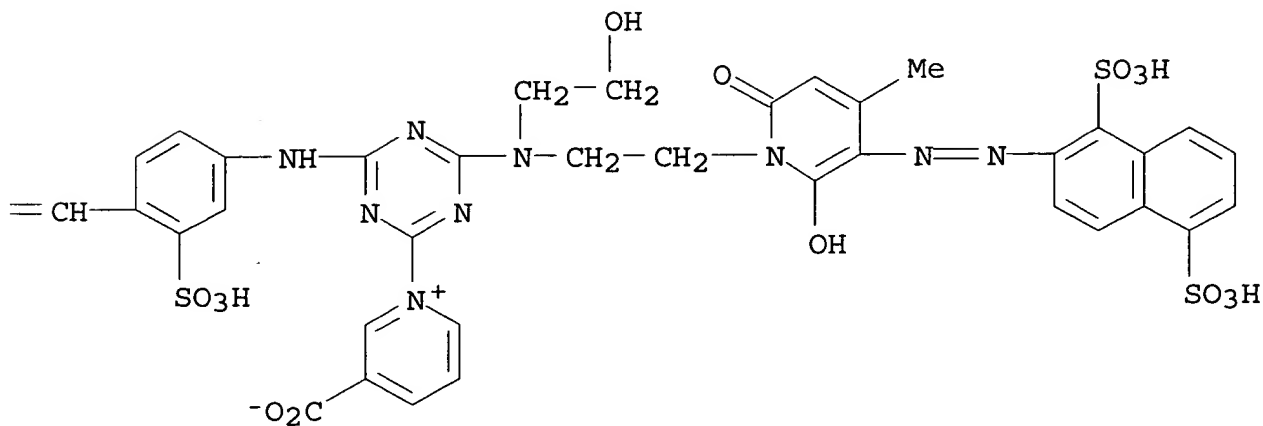


RN 141281-50-7 HCA
 CN Pyridinium, 3-carboxy-1-[4-[[4-[2-[4-[[4-(3-carboxypyridinio)-6-[[2-[5-[(1,5-disulfo-2-naphthalenyl)azo]-6-hydroxy-4-methyl-2-oxo-1(2H)-pyridinyl]ethyl](2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]ethenyl]-3-sulfophenyl]amino]-6-[[2-[5-[(1,5-disulfo-2-naphthalenyl)azo]-6-hydroxy-4-methyl-2-oxo-1(2H)-pyridinyl]ethyl][2-(sulfooxy)ethyl]amino]-1,3,5-triazin-2-yl]-, bis(inner salt) (9CI)
 (CA INDEX NAME)

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L12 ANSWER 29 OF 72 HCA COPYRIGHT 2002 ACS

116:224624 Silver halide photographic material having cyan coupler emulsion layer. Kaguchi, Hiroyuki; Hirabayashi, Shigeto; Kaneko, Yutaka (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 03291649 A2 19911220 Heisei, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-94754 19900410.

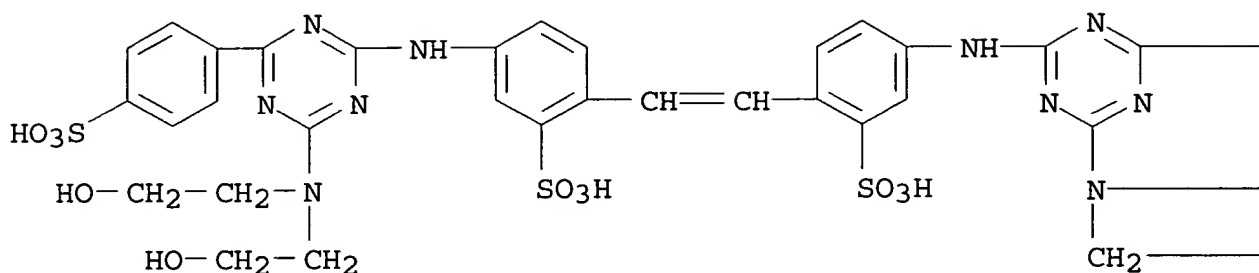
IT 92466-48-3

(brightening agent, photog. emulsion layer contg.)

RN 92466-48-3 HCA

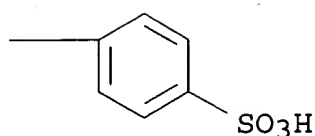
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

PAGE 1-B

—CH₂—CH₂—OH—CH₂—OH

L12 ANSWER 30 OF 72 HCA COPYRIGHT 2002 ACS

114:217992 Silver halide photographic materials with improved color reproduction. Hirabayashi, Shigeto; Kono, Junichi; Kaneko, Yutaka (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 02251848 A2 19901009 Heisei, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-72948 19890325.

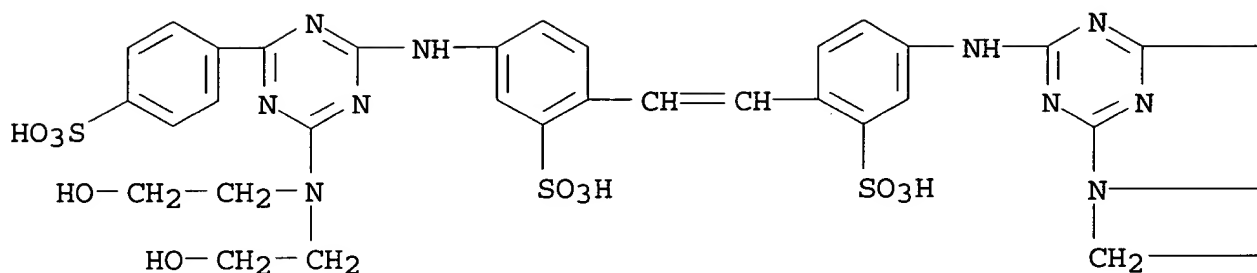
IT 92466-48-3

(fluorescent brightener, photog. paper contg., for prevention of background staining)

RN 92466-48-3 HCA

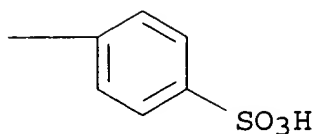
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 4 Na

PAGE 1-B

—CH₂—CH₂—OH—CH₂—OH

L12 ANSWER 31 OF 72 HCA COPYRIGHT 2002 ACS

114:133017 Silver halide color photographic material containing a pyrazolopyrimidine cyan coupler for good color reproduction and image stability. Kaguchi, Hiroyuki; Hirabayashi, Shigeto; Kono, Junichi; Kaneko, Yutaka (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 02193147 A2 19900730 Heisei, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-11005 19890121.

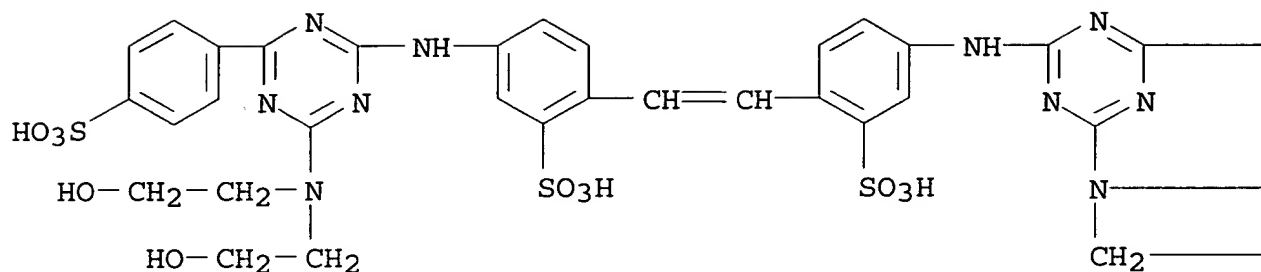
IT 92466-48-3

(fluorescent brighteners, in photog. materials contg. pyrazolopyrimidine cyan couplers)

RN 92466-48-3 HCA

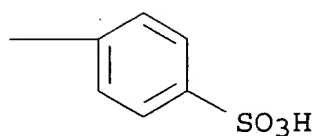
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 4 Na

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— CH₂— CH₂— OH— CH₂— OH

L12 ANSWER 32 OF 72 HCA COPYRIGHT 2002 ACS

114:83877 Drastic photo-stabilization of 4,4'-diaminostilbene 2,2'-disulfonates in micellar solutions. Seguchi, Kazuyoshi; Tanaka, Satoko; Ebara, Yoshiko; Yoshida, Junko (Dep. Text. Sci., Mukogawa Women's Univ., Nishinomiya, 663, Japan). Mukogawa Joshi Daigaku Kiyo, Kaseigakubu-hen, 37, 31-4 (English) 1989. CODEN: MJDKE8. ISSN: 0389-5831.

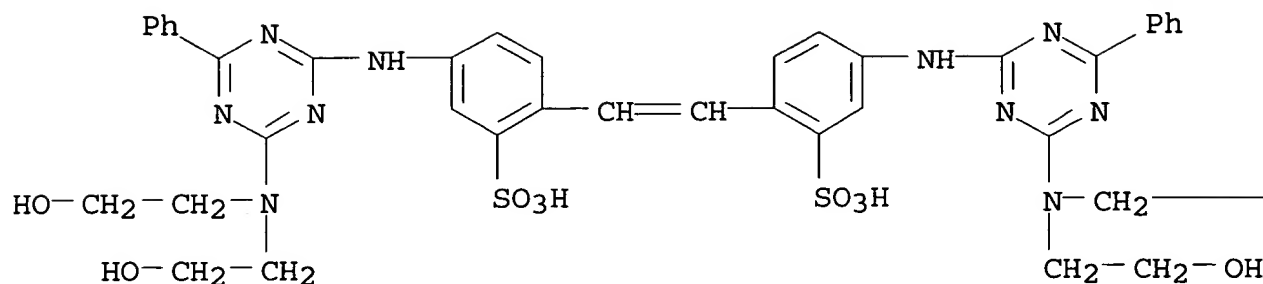
IT 132037-59-3

(photostabilization of, by pyridinium cationic micelles)

RN 132037-59-3 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-phenyl-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

PAGE 1-B

— CH₂— OH

L12 ANSWER 33 OF 72 HCA COPYRIGHT 2002 ACS

113:14686 Silver halide color photographic material with improved color reproducibility. Tachibana, Kimie; Kaneko, Yutaka; Hirabayashi, Shigeto; Kono, Junichi (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 01277836 A2 19891108 Heisei, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-105497 19880430.

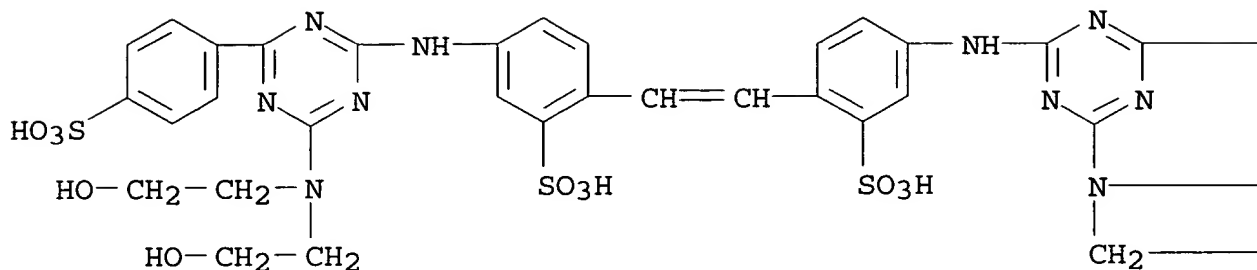
IT 92466-48-3

(fluorescent brightener, photog. protective layer contg.)

RN 92466-48-3 HCA

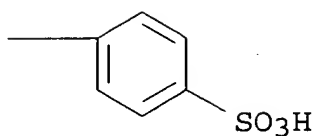
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 4 Na

PAGE 1-B

— CH₂— CH₂— OH— CH₂— OH

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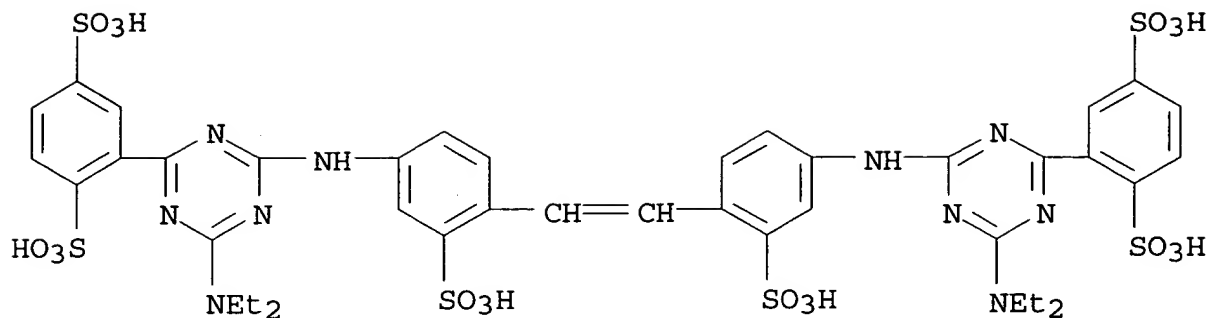
113:14657 Photographic material containing diaminostilbene fluorescent brightener. Nishijima, Toyoki; Tanji, Masaki (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 01216348 A2 19890830 Heisei, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-41351 19880224.

IT 127655-43-0 127655-44-1 127655-45-2

(fluorescent brightener, photog. material contg.)

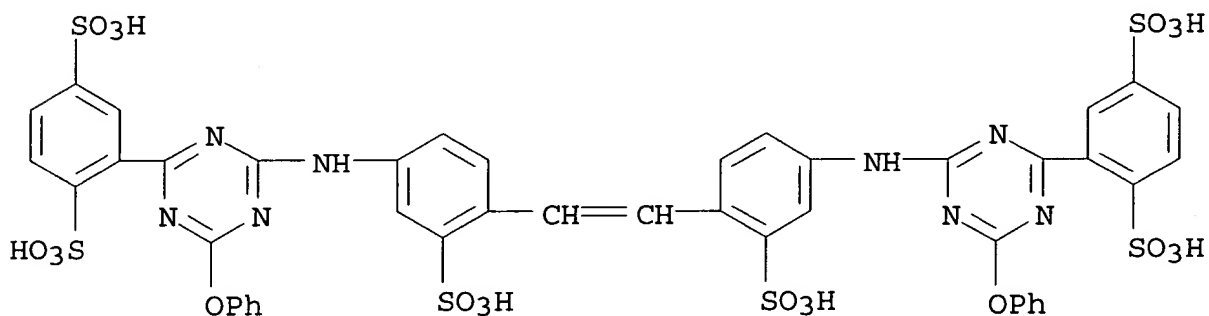
RN 127655-43-0 HCA

CN 1,4-Benzenedisulfonic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-(diethylamino)-1,3,5-triazine-4,2-diyl]]]bis-, hexasodium salt (9CI) (CA INDEX NAME)



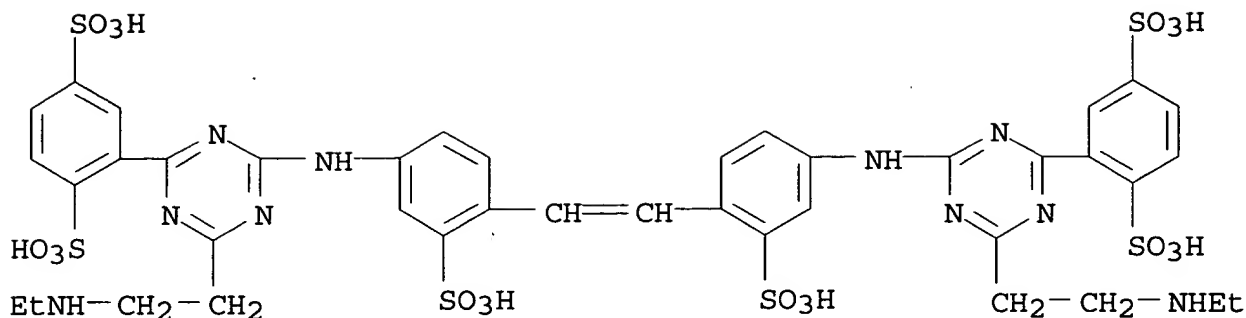
● 6 Na

RN 127655-44-1 HCA
 CN 1,4-Benzenedisulfonic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino(6-phenoxymethyl-1,3,5-triazine-4,2-diyl)]]bis-, hexasodium salt (9CI) (CA INDEX NAME)



● 6 Na

RN 127655-45-2 HCA
 CN 1,4-Benzenedisulfonic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[2-(ethylamino)ethyl]-1,3,5-triazine-4,2-diyl]]]bis-, hexasodium salt (9CI) (CA INDEX NAME)



● 6 Na

L12 ANSWER 35 OF 72 HCA COPYRIGHT 2002 ACS

109:201374 Electrophotographic photoreceptor containing charge carrier-generating azo compounds.. Ono, Hitoshi; Sudo, Masako (Mitsubishi Chemical Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63063047 A2 19880319 Showa, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-207289 19860903.

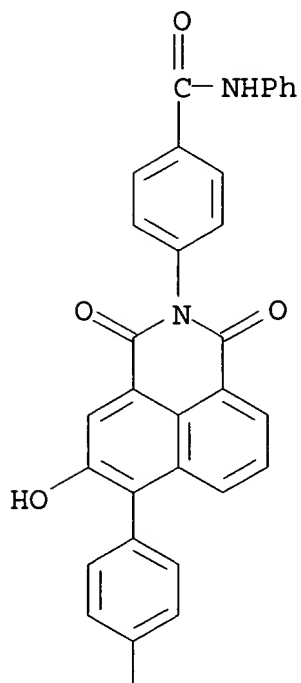
IT 117419-84-8

(electrophotog. photoconductor contg., as charge carrier generator)

RN 117419-84-8 HCA

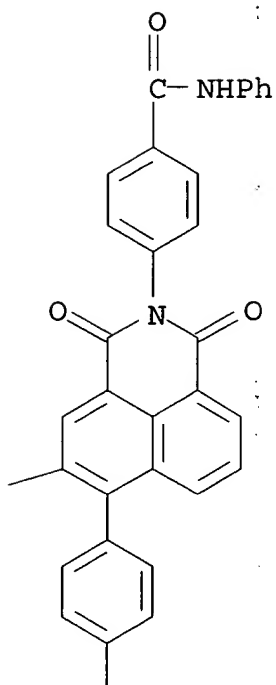
CN Benzamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis[4,1-phenylene(5-hydroxy-1,3-dioxo-1H-benz[de]isoquinoline-6,2(3H)-diyl)]]]tetrakis[N-phenyl- (9CI) (CA INDEX NAME)

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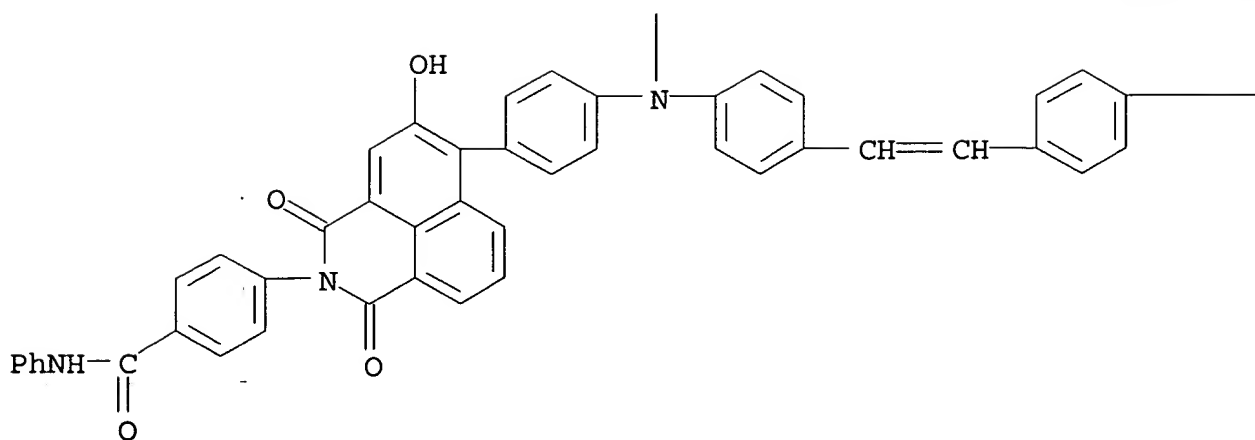


HO—

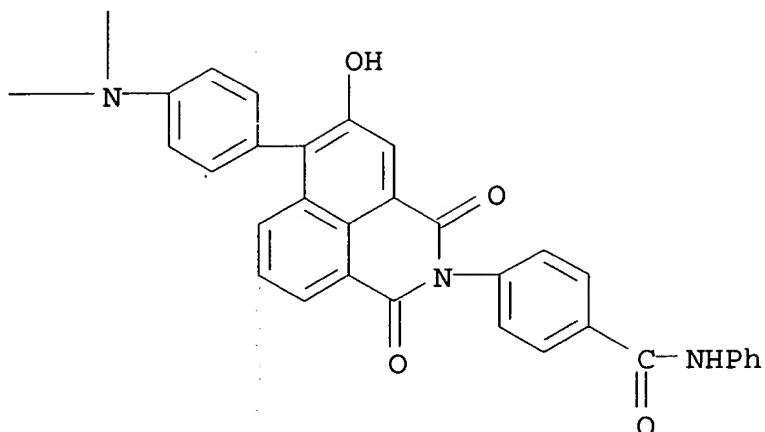
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PAGE 2-A



PAGE 2-B



L12 ANSWER 36 OF 72 HCA COPYRIGHT 2002 ACS

109:130803 Reactive disazo dyes. Schlaefer, Ludwig; Springer, Hartmut;
Haehnle, Reinhard (Hoechst A.-G., Fed. Rep. Ger.). Ger. Offen. DE
3637337 A1 19880511, 24 pp. (German). CODEN: GWXXBX. APPLICATION:
DE 1986-3637337 19861103.

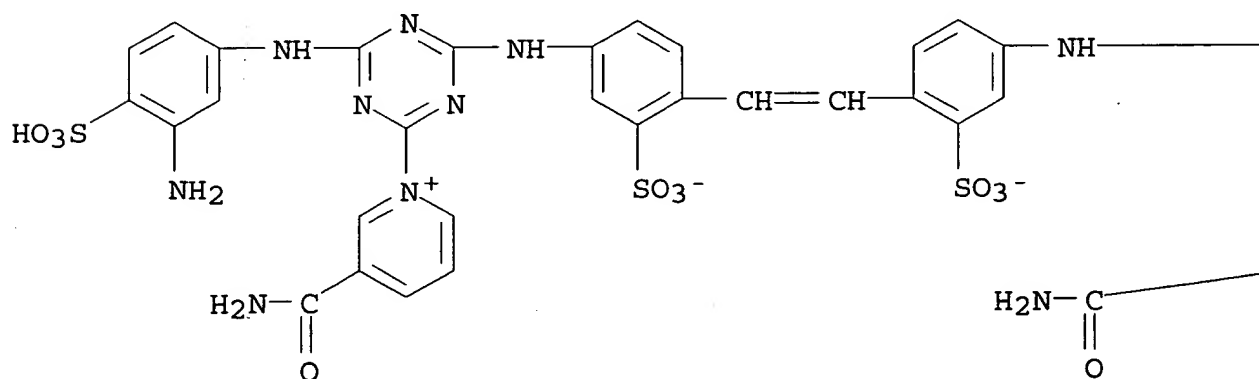
IT 116414-04-1

(coupling of tetrazotized, with [(chloroethylsulfonyl)benzoylamin
o]hydroxynaphthalenedisulfonic acid)

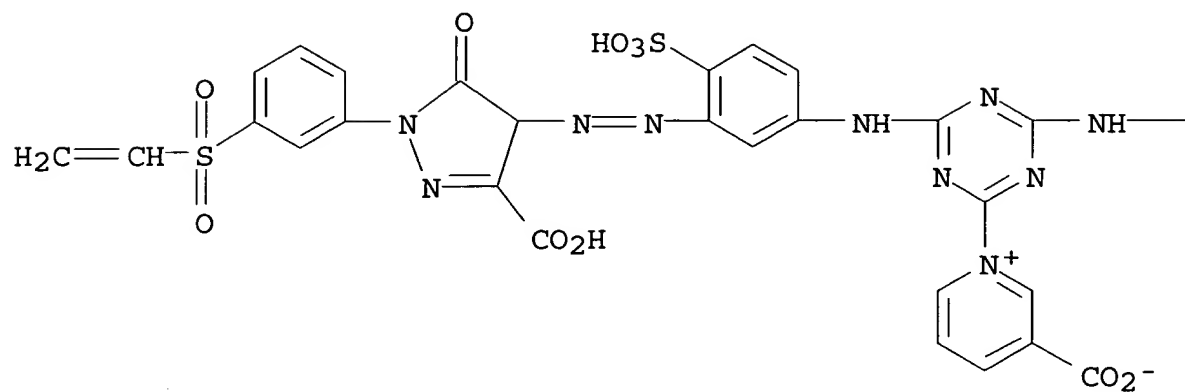
RN 116414-04-1 HCA

CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene) imino[6-
[(3-amino-4-sulfophenyl) amino]-1,3,5-triazine-4,2-diyl]]]bis[3-
(aminocarbonyl)-, bis(inner salt) (9CI) (CA INDEX NAME)

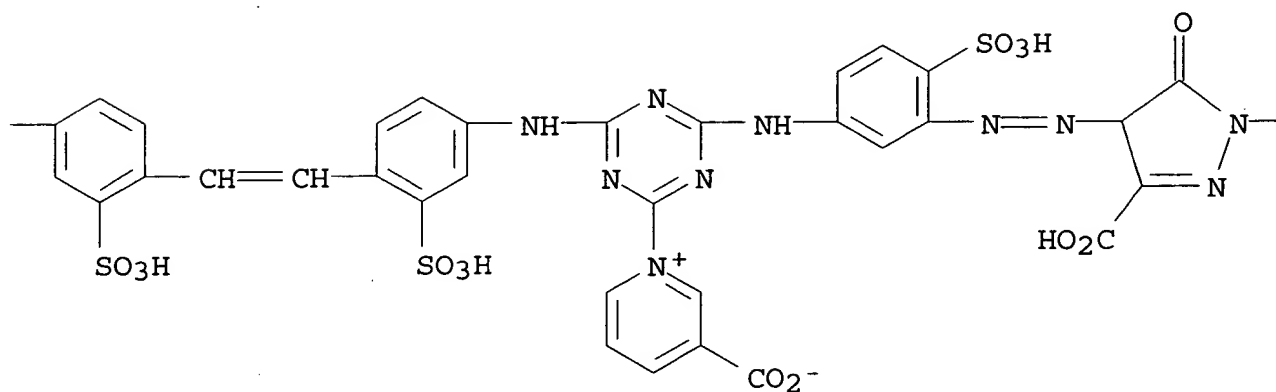
PAGE 1-A



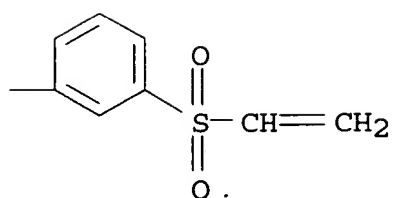
PAGE 1-A



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PAGE 1-C



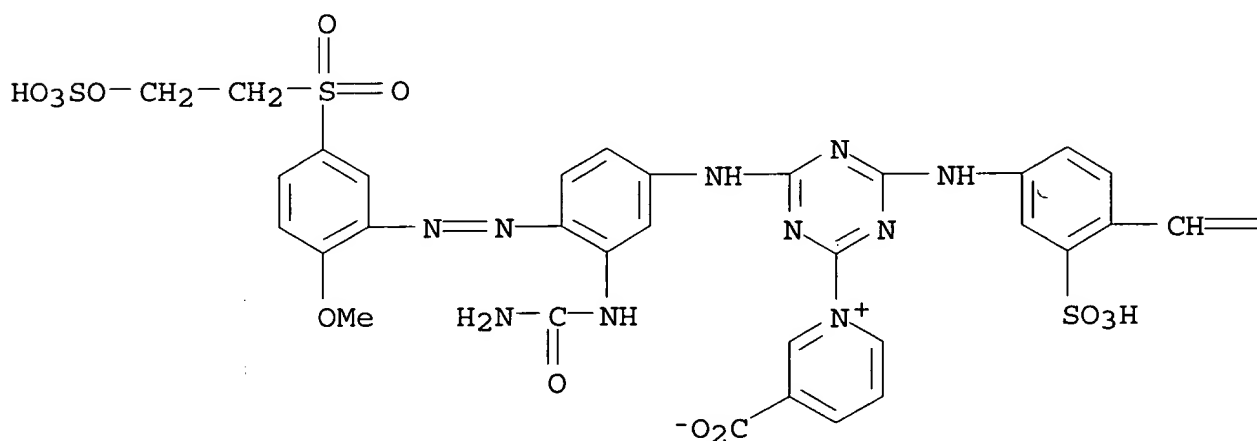
3636398 A1 19880505, 20 pp. (German). CODEN: GWXXBX. APPLICATION:
DE 1986-3636398 19861025.

IT 116390-60-4P 116390-61-5P 116413-99-1P
(manuf. of, as reactive orange dye)

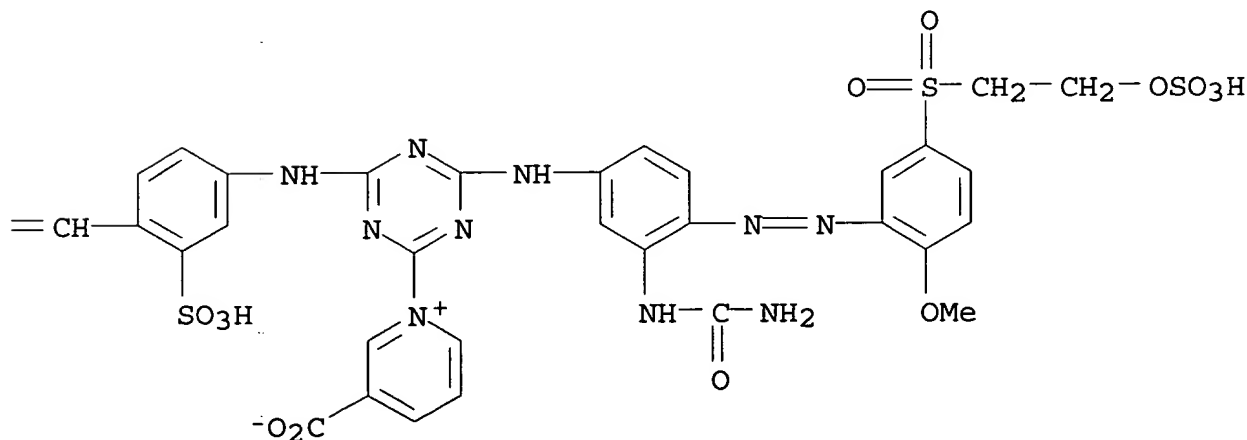
RN 116390-60-4 HCA

CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
[[3-[(aminocarbonyl)amino]-4-[[2-methoxy-5-[[2-
(sulfooxy)ethyl]sulfonyl]phenyl]azo]phenyl]amino]-1,3,5-triazine-4,2-
diyl]]]bis[3-carboxy-, bis(inner salt) (9CI) (CA INDEX NAME)

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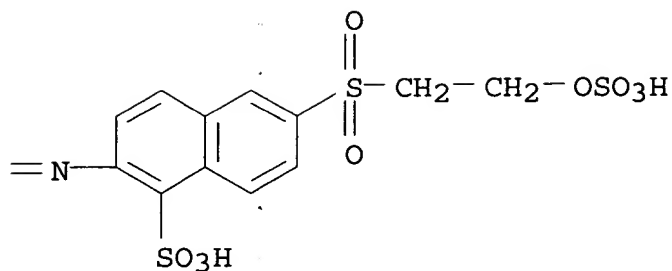
PAGE 1-B



RN 116390-61-5 HCA

CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-

PAGE 1-C



L12 ANSWER 38 OF 72 HCA COPYRIGHT 2002 ACS

109:64169 Photographic color developer compositions producing no precipitates. Kurematsu, Masayuki; Koboshi, Shigeharu; Kon, Masahiko (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 62178960 A2 19870806 Showa, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-21852 19860203.

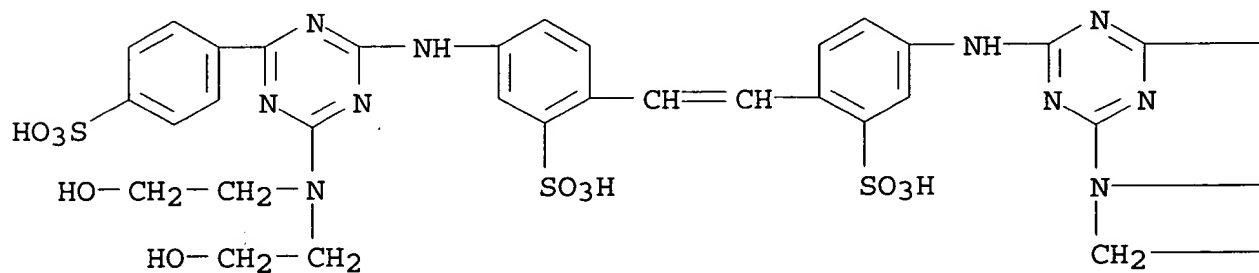
IT 92466-48-3

(fluorescent brightener, photog. color developer contg.)

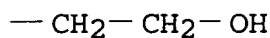
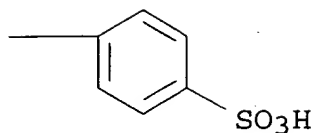
RN 92466-48-3 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

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L12 ANSWER 39 OF 72 HCA COPYRIGHT 2002 ACS

109:46063 Rinseless silver halide color photographic developing solution containing phenylenediaminer color developing agent and triazinylstyrene fluorescent whitener. Takabayashi, Naoki; Koboshi, Shigeharu; Kurematsu, Masayuki (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 62253164 A2 19871104 Showa, 29 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-43643 19860228. PRIORITY: JP 1986-17566 19860129.

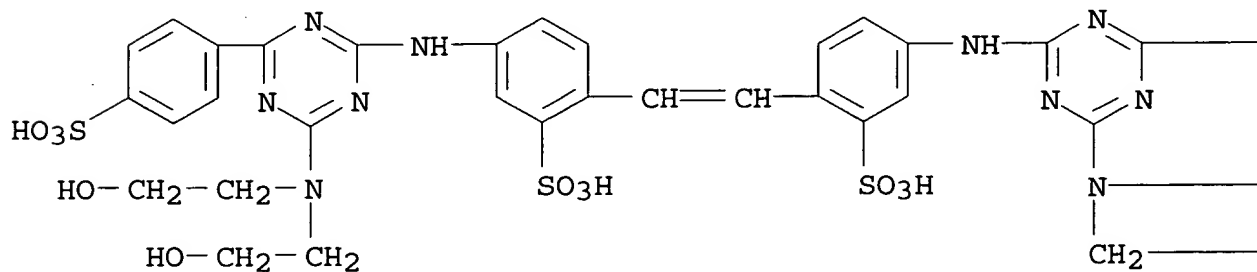
IT 92466-48-3

(fluorescent whitener, rinseless rapid color photog. processing soln. contg.)

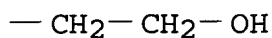
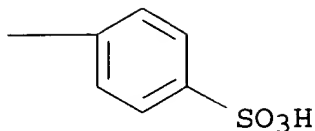
RN 92466-48-3 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

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L12 ANSWER 40 OF 72 HCA COPYRIGHT 2002 ACS

108:13829 Silver halide photographic color developer additive compositions. Kurematsu, Masayuki; Koboshi, Shigeharu (Konishiroku Photo Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62183458 A2 19870811 Showa, 21 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-26242 19860207.

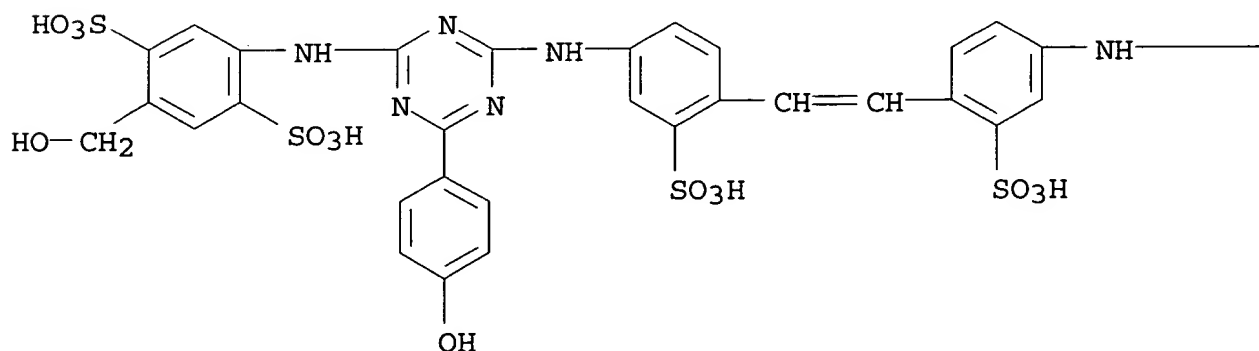
IT 92466-53-0

(fluorescent whitener, photog. color developer additive soln. contg. hydroxylamine sulfate and)

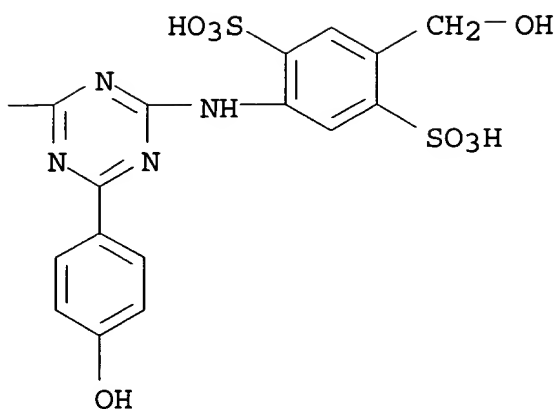
RN 92466-53-0 HCA /

CN 1,4-Benzenedisulfonic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-(4-hydroxyphenyl)-1,3,5-triazine-4,2-diyl]imino]]bis[5-(hydroxymethyl)-, hexasodium salt (9CI) (CA INDEX NAME)

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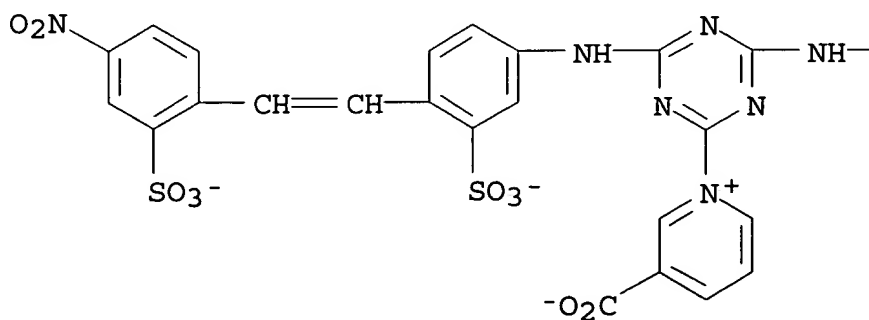


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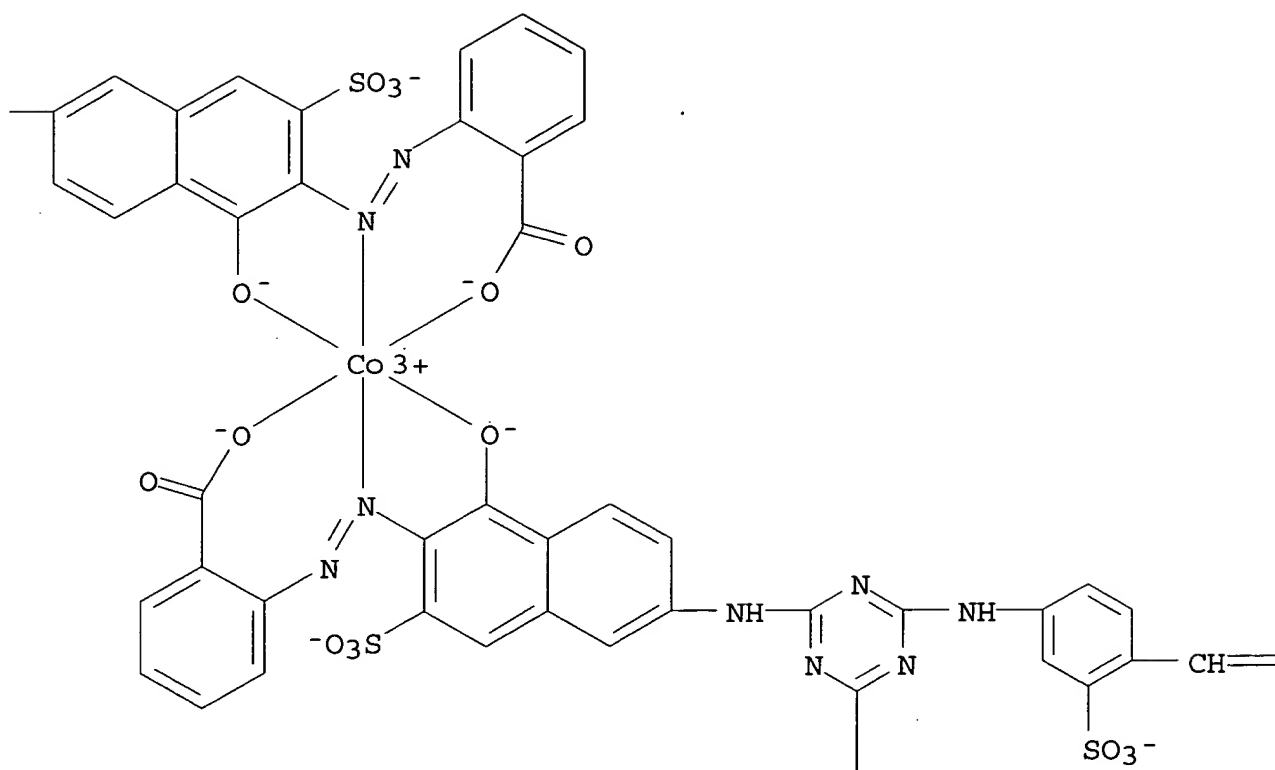


L12 ANSWER 41 OF 72 HCA COPYRIGHT 2002 ACS
 107:178029 Dyeing nitrogen-containing fibers. Izutsu, Kyoto; Watanabe, Shigeyuki; Shirasaki, Toshitaka (Nippon Kayaku Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62053486 A2 19870309 Showa, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-188517 19850829.
 IT 109896-00-6 110162-44-2
 (dye, for nitrogen-contg. fibers)
 RN 109896-00-6 HCA
 CN Cobaltate(7-), bis[3-carboxy-1-[4-[[6-[(2-carboxyphenyl)azo]-5-hydroxy-7-sulfo-2-naphthalenyl]amino]-6-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]amino]-1,3,5-triazin-2-yl]pyridiniumato(6-)]-, heptahydrogen (9CI) (CA INDEX NAME)

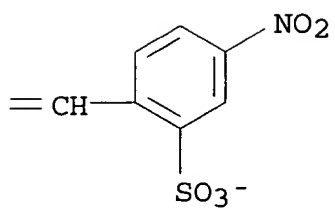
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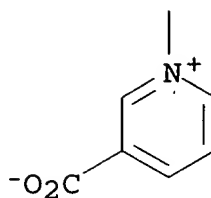


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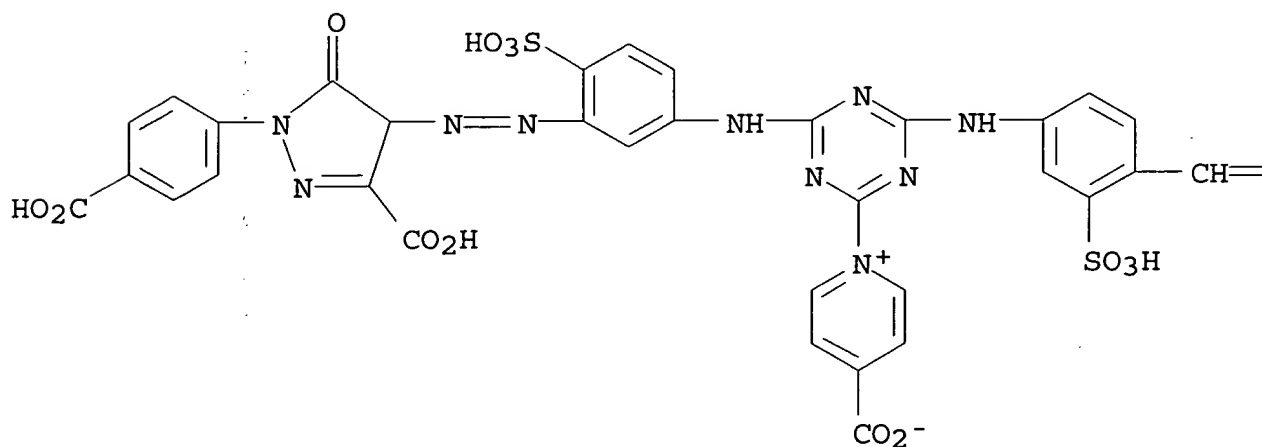
PAGE 2-A

PAGE 2-B

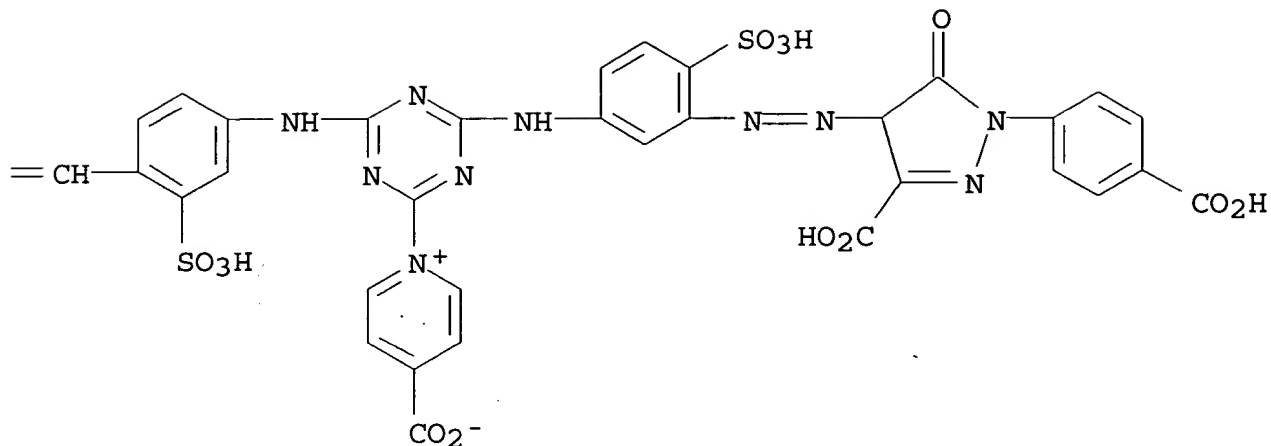


RN 110162-44-2 HCA
 CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[3-[[3-carboxy-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo-1H-pyrazol-4-
 yl]azo]-4-sulfo-phenyl]amino]-1,3,5-triazine-4,2-diyl]]]bis[4-carboxy-
 , bis(inner salt) (9CI) (CA INDEX NAME)

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L12 ANSWER 42 OF 72 HCA COPYRIGHT 2002 ACS

107:165420 Electrophotographic charge-generating tetrakisazo pigments.

Matsumoto, Masakazu; Umehara, Masashige; Takiguchi, Takao;

Yamashita, Masataka; Ishikawa, Shozo (Canon K. K., Japan). Jpn.

Kokai Tokyo Koho JP 62018565 A2 19870127 Showa, 40 pp. (Japanese).

CODEN: JKXXAF. APPLICATION: JP 1985-157699 19850717.

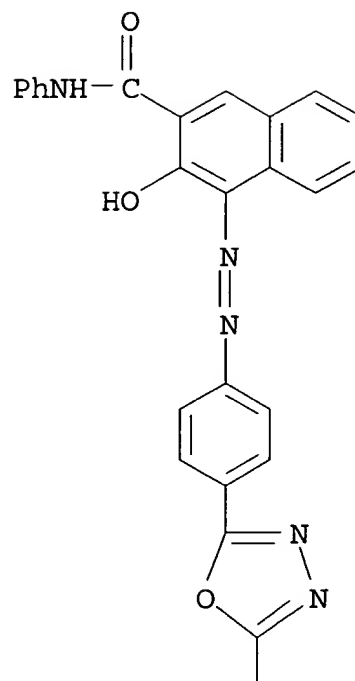
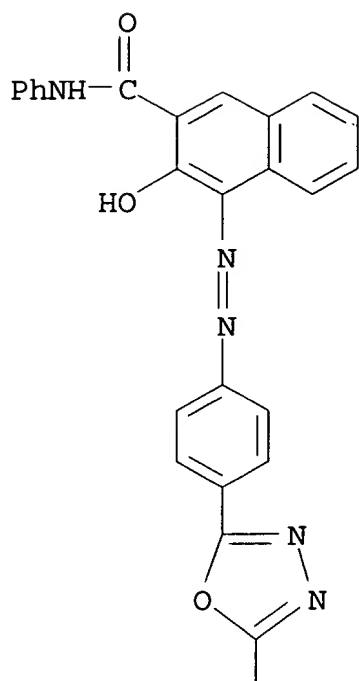
IT 110573-71-2

(electrophotog. charge-generating pigments)

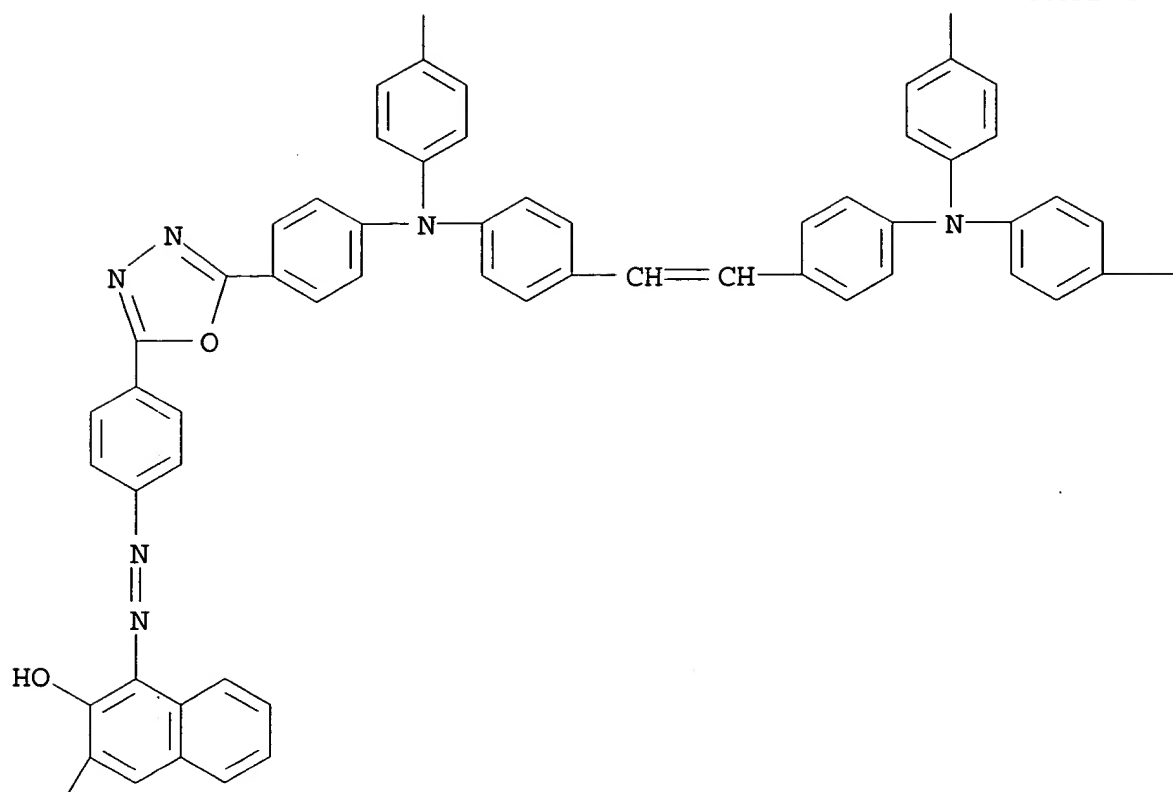
RN 110573-71-2 HCA

CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenylene-1,3,4-oxadiazole-5,2-diyl-4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

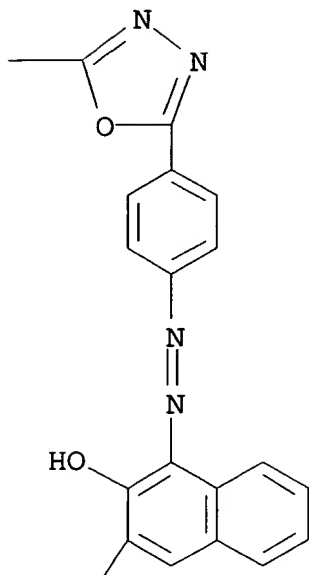
PAGE 1-A



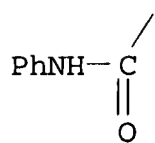
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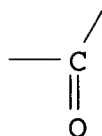


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PhNH—

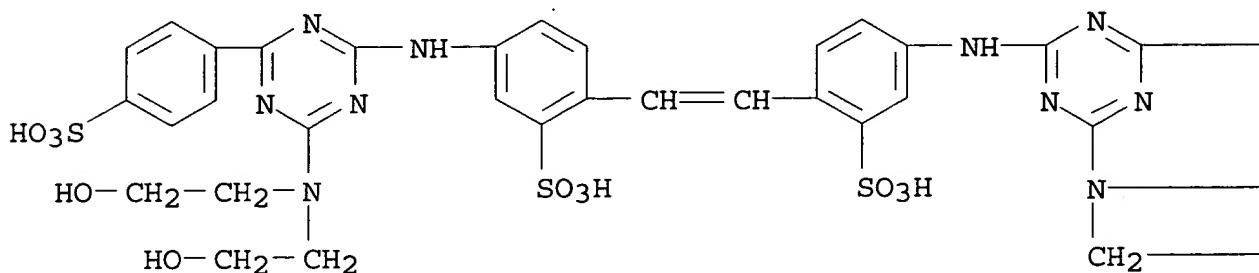
PAGE 3-B



materials. Kurematsu, Masayuki; Koboshi, Shigeharu (Konishiroku Photo Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61261742 A2 19861119 Showa, 36 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-105389 19850515.

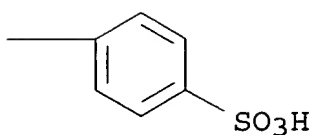
IT 92466-48-3
(fluorescent whitener, color photog. stabilization soln. contg.)
RN 92466-48-3 HCA
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

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● 4 Na

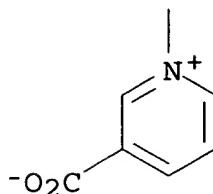
PAGE 1-B

—CH₂—CH₂—OH—CH₂—OH

L12 ANSWER 44 OF 72 HCA COPYRIGHT 2002 ACS
107:79474 One-bath dyeing of fiber blends. Izutsu, Kiyoto; Shirasaki, Toshitaka (Nippon Kayaku Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62006989 A2 19870113 Showa, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-140199 19850628.

IT 109296-00-6 109896-00-6
(dye, for cellulosic fiber blends)
RN 109296-00-6 HCA
CN Pyridinium, 4-carboxy-1-[4-[[3-[[3-carboxy-1-(4-carboxyphenyl)-4,5-

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L12 ANSWER 45 OF 72 HCA COPYRIGHT 2002 ACS

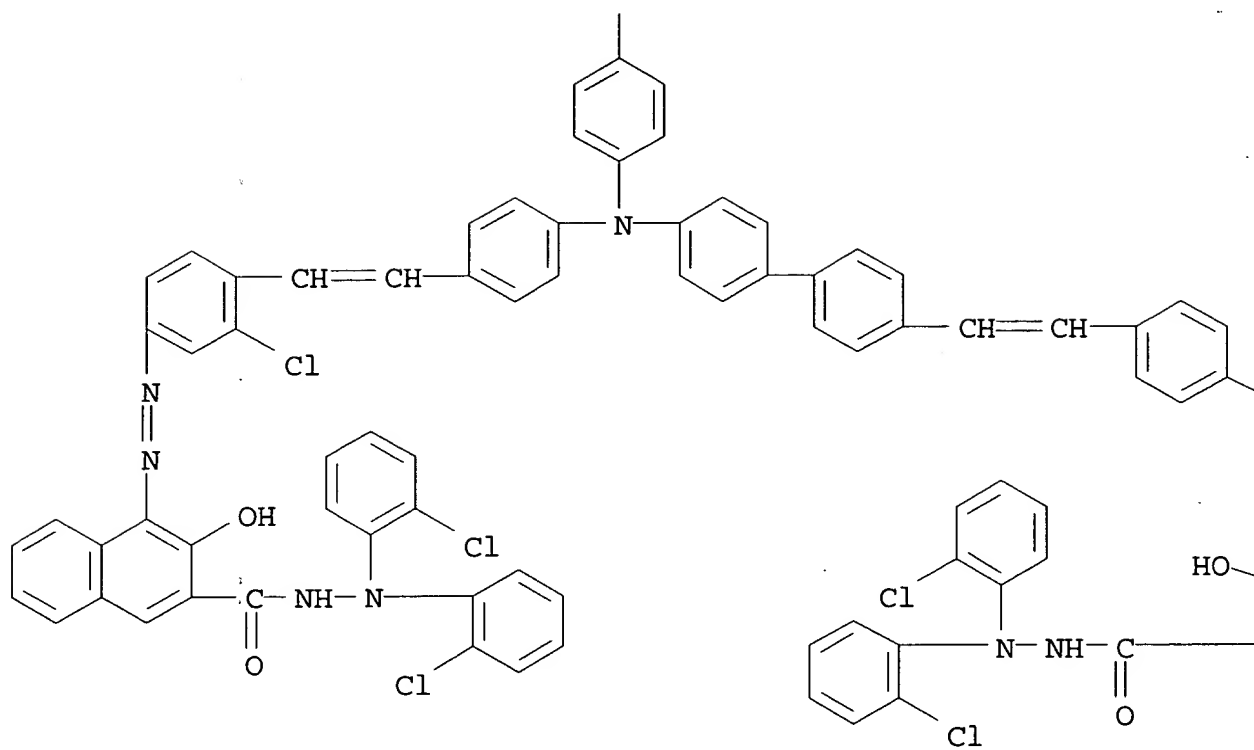
107:31167 Electrophotographic charge-generating azo compounds.
 Matsumoto, Masakazu; Takiguchi, Takao; Yamashita, Masataka; Umehara,
 Masashige; Ishikawa, Shozo (Canon K. K., Japan). Jpn. Kokai Tokkyo
 Koho JP 61251865 A2 19861108 Showa, 21 pp. (Japanese). CODEN:
 JKXXAF. APPLICATION: JP 1985-90453 19850426.

IT 108939-12-4 108939-13-5 108939-14-6
 (electrophotog. charge-generating compd., with improved
 sensitivity and durability)

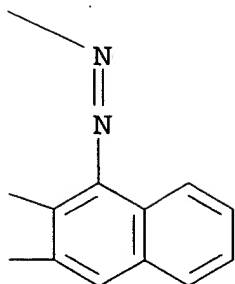
RN 108939-12-4 HCA

CN 2-Naphthalenecarboxylic acid, 4-[[[4-[2-[4-[4-[2-[4-[3-[[2,2-bis(2-
 chlorophenyl)hydrazino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-2-
 chlorophenyl]ethenyl]phenyl][4'-[2-[4-[3-[[2,2-bis(2-
 chlorophenyl)hydrazino]carbonyl]-2-hydroxy-1-
 naphthalenyl]azo]phenyl]ethenyl][1,1'-biphenyl]-4-
 yl]amino]phenyl]ethenyl]phenyl]azo]-3-hydroxy-, 2,2-bis(2-
 chlorophenyl)hydrazide (9CI) (CA INDEX NAME)

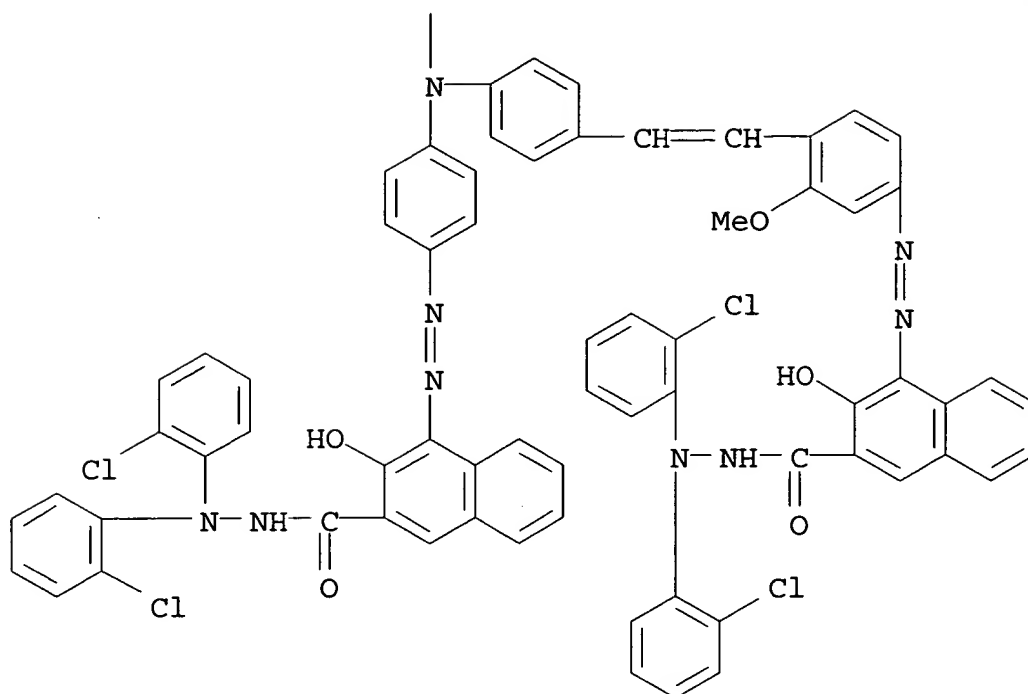
PAGE 2-A



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L12 ANSWER 46 OF 72 HCA COPYRIGHT 2002 ACS

107:31162 Photosensitive recording material for electrophotography.

Yamashita, Masataka; Takiguchi, Takao; Umehara, Shoji; Matsumoto, Masakazu; Ishikawa, Shozo (Canon K. K., Japan). Ger. Offen. DE 3610994 A1 19861106, 218 pp. (German). CODEN: GWXXBX.

APPLICATION: DE 1986-3610994 19860402. PRIORITY: JP 1985-69721 19850402; JP 1985-69722 19850402; JP 1985-90452 19850426; JP 1985-92286 19850501; JP 1985-101513 19850515; JP 1985-110097 19850524.

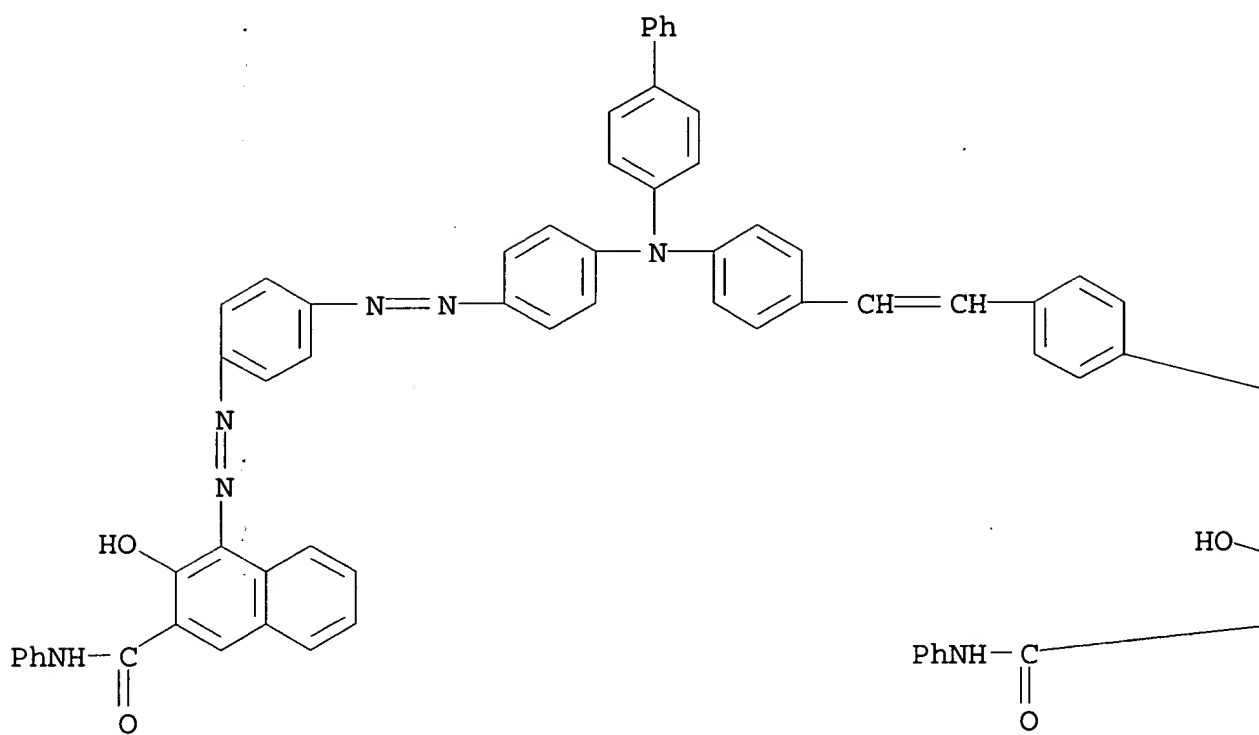
IT 107789-67-3 107790-06-7 107803-78-1

(electrophotog. composite photoreceptor with charge carrier-generating layer contg.)

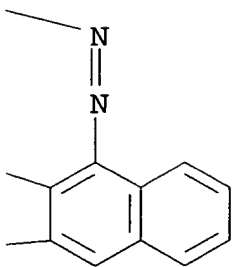
RN 107789-67-3 HCA

CN 2-Naphthalenecarboxamide, 4-[[4-[2-[4-[[1,1'-biphenyl]-4-yl[4-[[4-[2-hydroxy-3-[(phenylamino)carbonyl]-1-naphthalenyl]azo]phenyl]azo]phenyl]amino]phenyl]ethenyl]phenyl]azo]-3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

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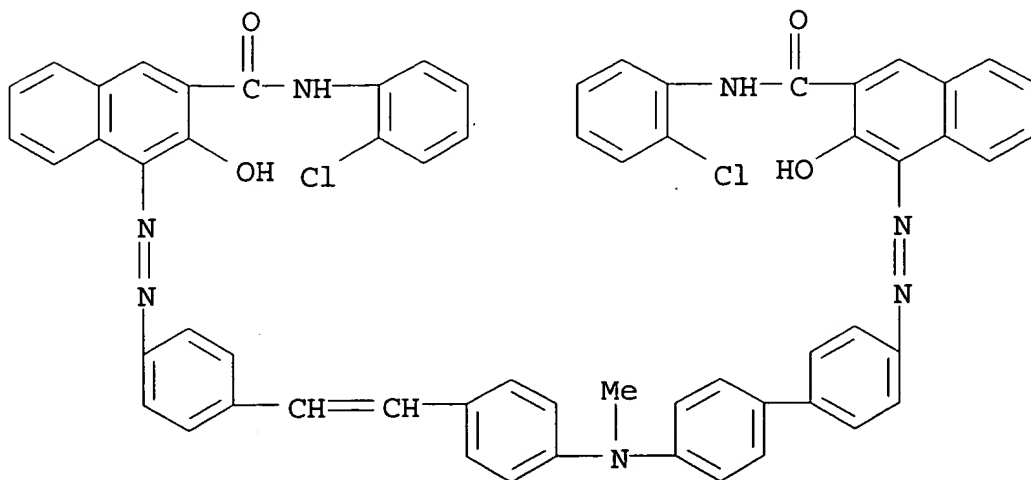


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RN 107790-06-7 HCA

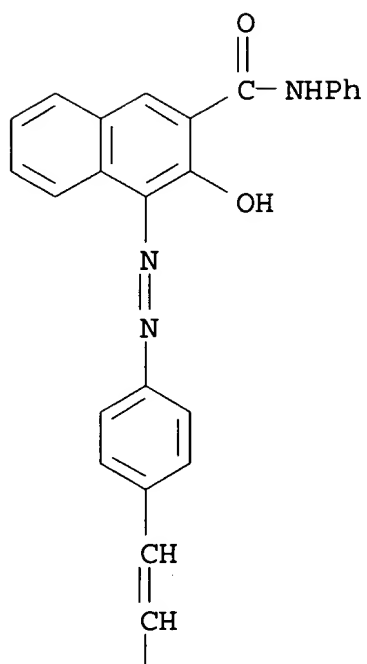
CN 2-Naphthalenecarboxamide, N-(2-chlorophenyl)-4-[[4-[2-[4-[[4'-[[3-
 [(2-chlorophenyl)amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo][1,1'-
 biphenyl]-4-yl]methylamino]phenyl]ethenyl]phenyl]azo]-3-hydroxy-
 (9CI) (CA INDEX NAME)



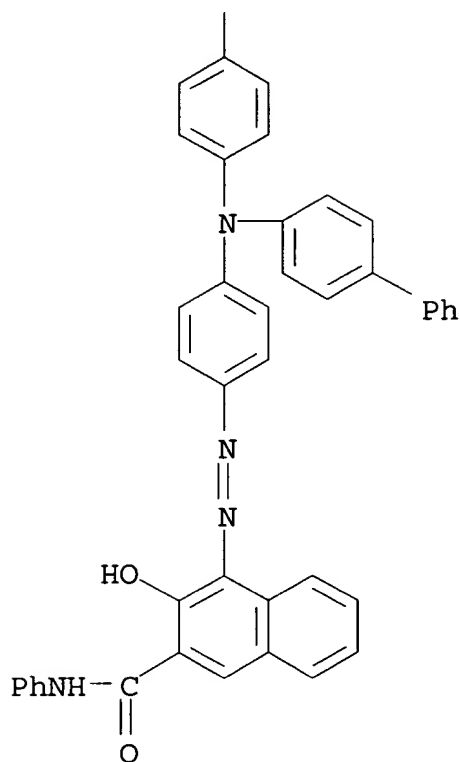
RN 107803-78-1 HCA

CN 2-Naphthalenecarboxamide, 4-[[4-[2-[4-[[1,1'-biphenyl]-4-yl[4-[[2-
 hydroxy-3-[(phenylamino)carbonyl]-1-naphthalenyl]azo]phenyl]amino]ph
 enyl]ethenyl]phenyl]azo]-3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

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L12 ANSWER 47 OF 72 HCA COPYRIGHT 2002 ACS

107:31112 Color photographic imaging process. Kurematsu, Masayuki;
 Koboshi, Shigeharu (Konishiroku Photo Industry Co., Ltd., Japan).
 Jpn. Kokai Tokkyo Koho JP 61251855 A2 19861108 Showa, 46 pp.
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-94762 19850430.

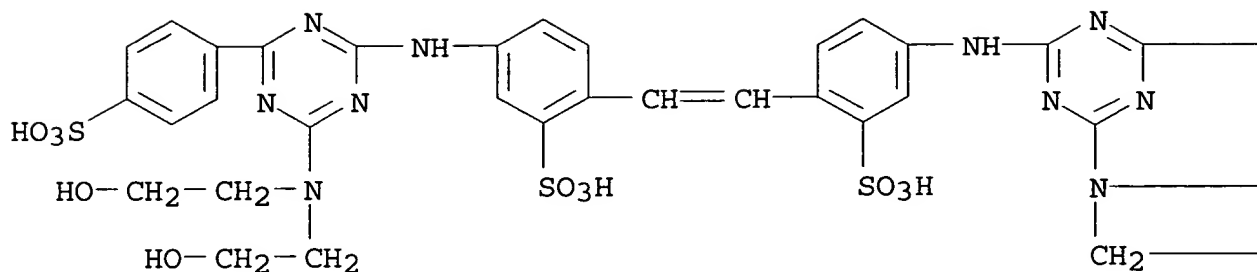
IT 92466-48-3

(fluorescent whitener, color photog. stabilization soln. contg.)

RN 92466-48-3 HCA

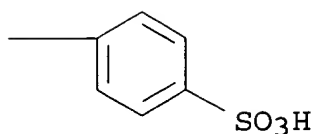
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-
 hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-,
 tetrasodium salt (9CI) (CA INDEX NAME)

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● 4 Na

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— CH₂— CH₂— OH— CH₂— OH

L12 ANSWER 48 OF 72 HCA COPYRIGHT 2002 ACS

106:224445 Electrophotographic charge-generating azo-photoconductors.

Matsumoto, Masakazu; Umehara, Masashige; Takiguchi, Takao;

Yamashita, Masataka; Ishikawa, Shozo (Canon K. K., Japan). Jpn.

Kokai Tokkyo Koho JP 61260251 A2 19861118 Showa, 23 pp. (Japanese).

CODEN: JKXXAF. APPLICATION: JP 1985-101514 19850515.

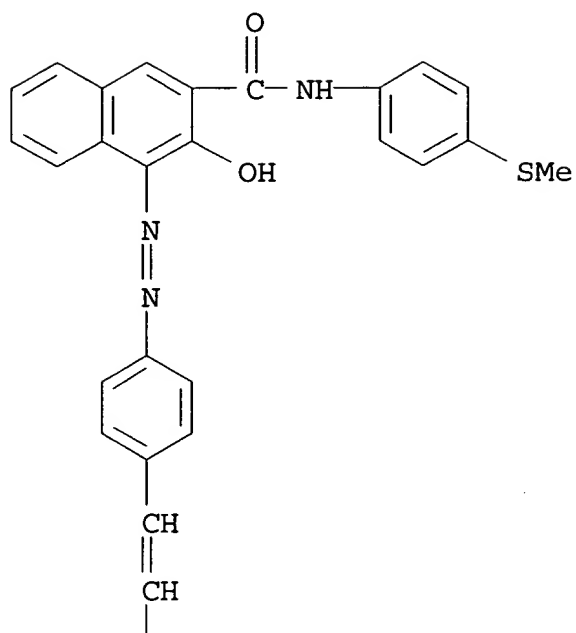
IT 108567-95-9 108567-96-0

(electrophotog. photoconductor with charge-generating azo compd.
from, with improved sensitivity and stability for repeated uses)

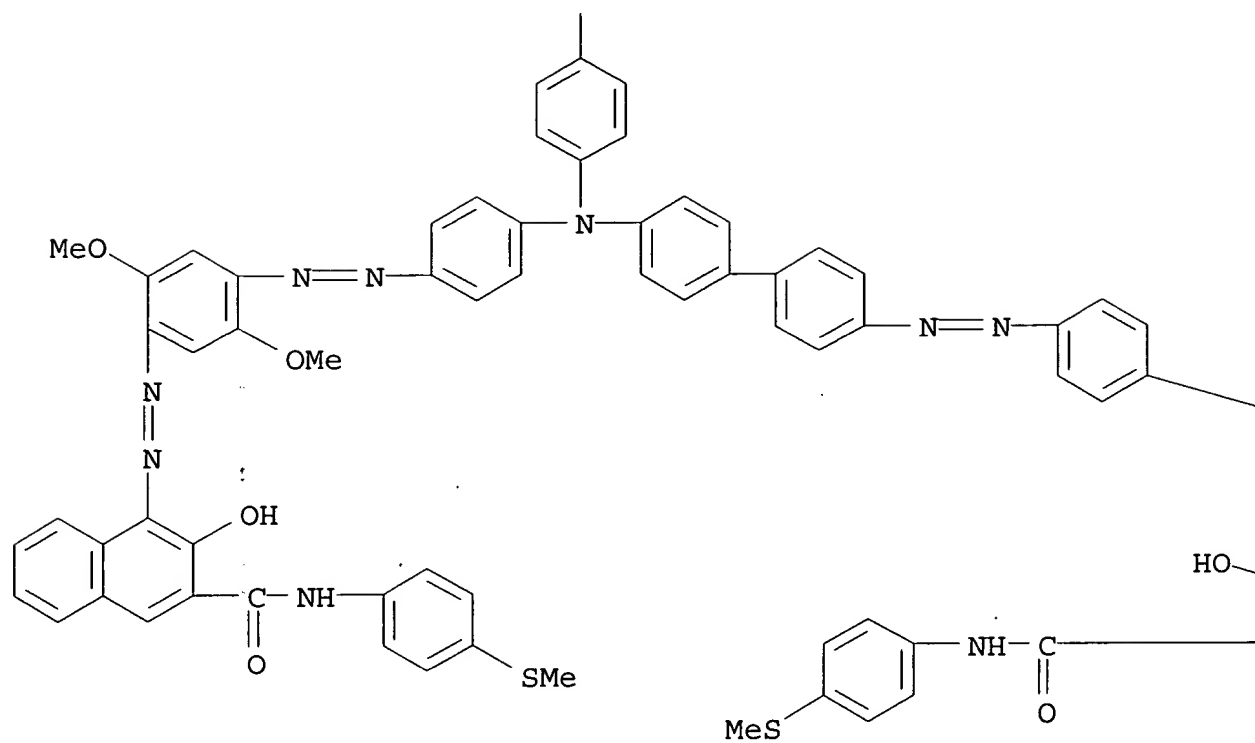
RN 108567-95-9 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[4-[2-[[[4-[[4-[[2-hydroxy-3-
[[[4-(methylthio)phenyl]amino]carbonyl]-1-naphthalenyl]azo]-2,5-
dimethoxyphenyl]azo]phenyl][4'-[[4-[[2-hydroxy-3-[[[4-
(methylthio)phenyl]amino]carbonyl]-1-naphthalenyl]azo]phenyl]azo][1,
1'-biphenyl]-4-yl]amino]phenyl]ethenyl]phenyl]azo]-N-[4-
(methylthio)phenyl]- (9CI) (CA INDEX NAME)

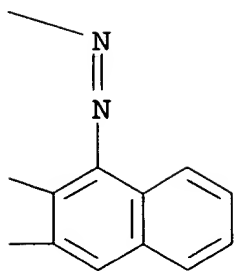
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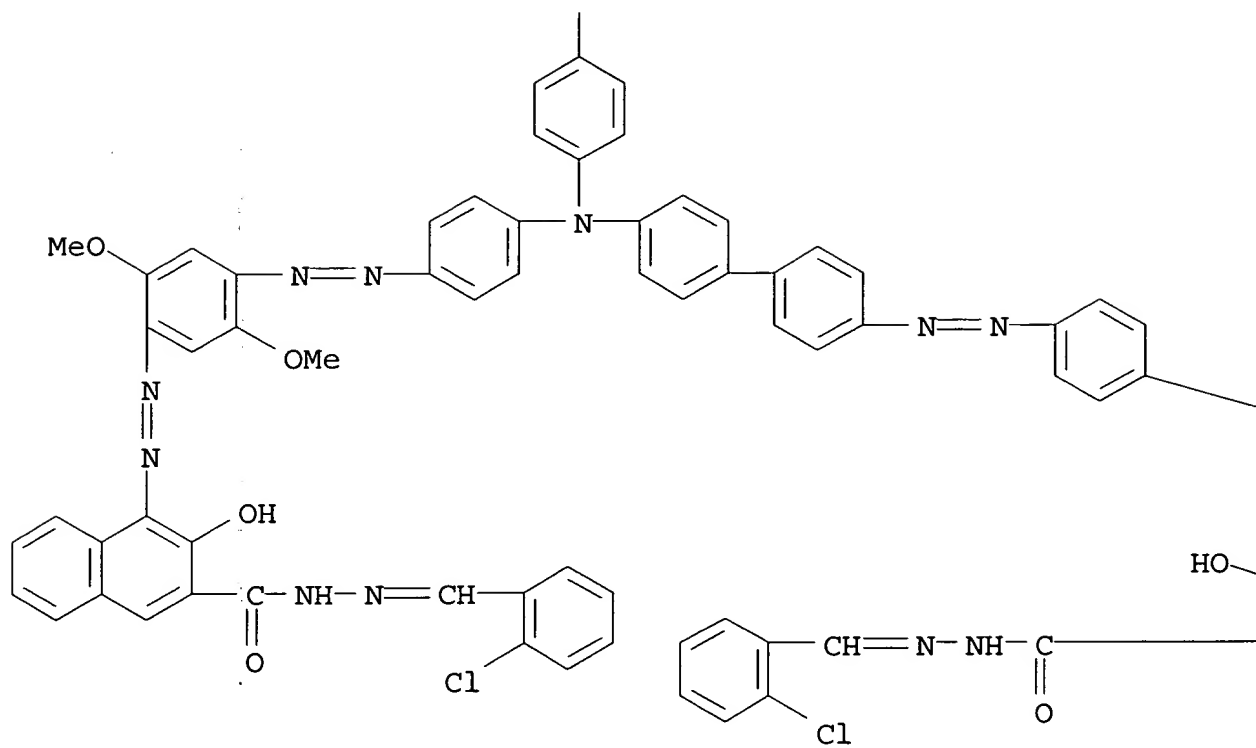
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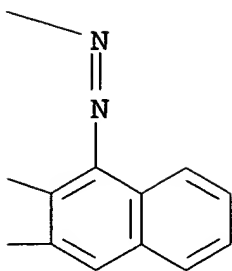
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L12 ANSWER 49 OF 72 HCA COPYRIGHT 2002 ACS

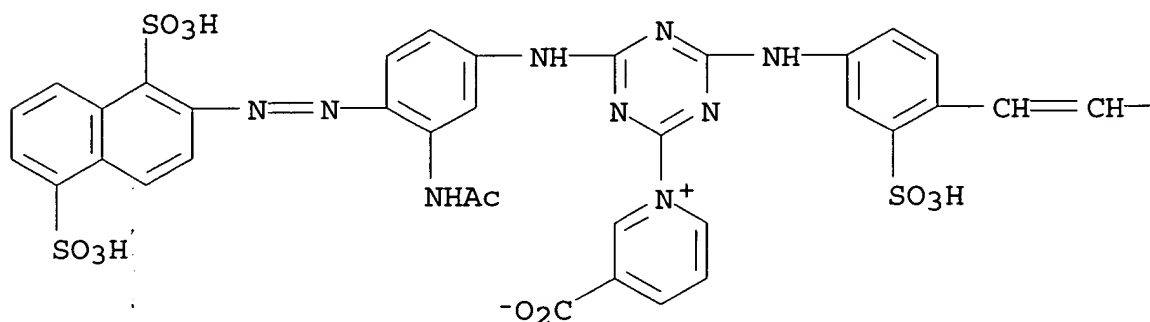
106:103756 Reactive disazo dye compositions. Ogawara, Yasuyuki; Hirosaki, Masataka; Oneda, Sadao; Ogino, Koji; Tanaka, Toshio (Nippon Kayaku Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61223057 A2 19861003 Showa, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-63267 19850329.

IT 107123-66-0D, reaction products with cationic surfactants (reactive dye printing compns. contg., for cellulose fabrics)

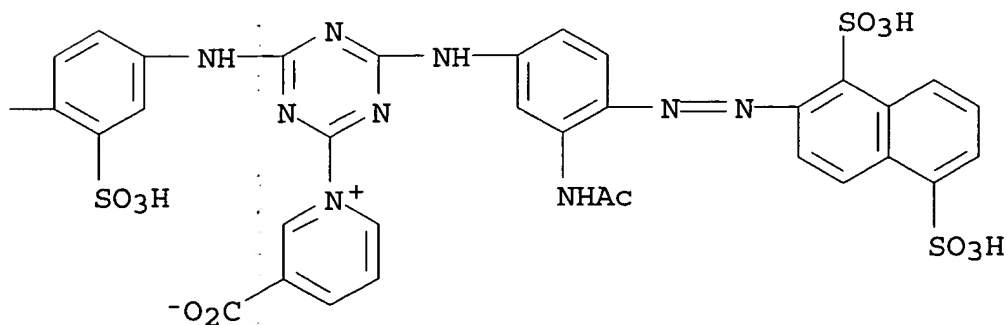
RN 107123-66-0 HCA

CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[[3-(acetylamino)-4-[(1,5-disulfo-2-naphthalenyl)azo]phenyl]amino]-1,3,5-triazine-4,2-diyl]]]bis[3-carboxy-, bis(inner salt) (9CI) (CA INDEX NAME)

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L12 ANSWER 50 OF 72 HCA COPYRIGHT 2002 ACS

105:216638 Processing silver halide color photosensitive material. Kurematsu, Masayuki; Koboshi, Shigeharu (Konishiroku Photo Industry Co., Ltd., Japan). Eur. Pat. Appl. EP 189191 A2 19860730, 84 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW.

APPLICATION: EP 1986-100833 19860122. PRIORITY: JP 1985-12198
19850124.

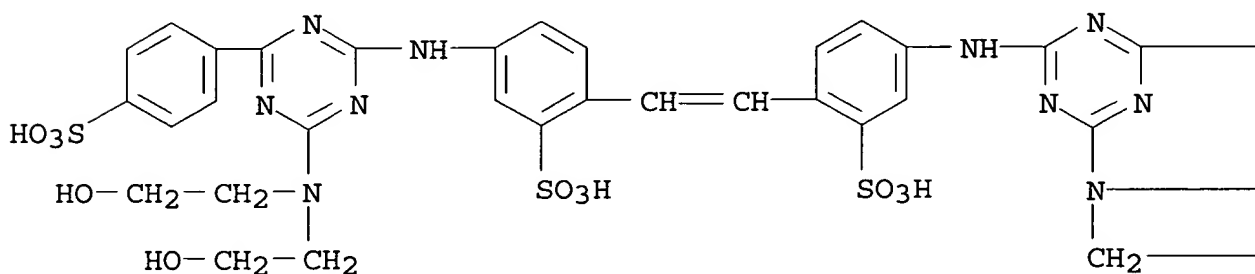
IT 92466-48-3

(color photog. processing with optical brightening agent from,
additive for)

RN 92466-48-3 HCA

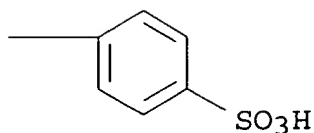
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

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● 4 Na

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—CH₂—CH₂—OH

—CH₂—OH

L12 ANSWER 51 OF 72 HCA COPYRIGHT 2002 ACS

105:192855 Reactive dyes. Shirasaki, Toshitaka; Toda, Junji; Sotokoshi, Teruhito; Kojima, Masayoshi (Nippon Kayaku Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61040367 A2 19860226 Showa, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-159236 19840731.

IT 104720-24-3

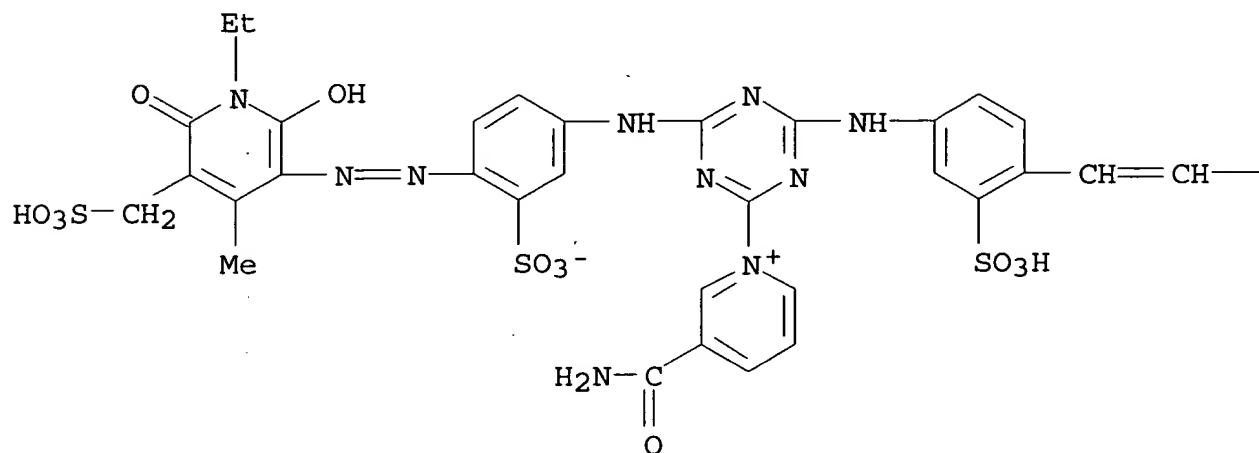
(dye, for cotton, manuf. of)

RN 104720-24-3 HCA

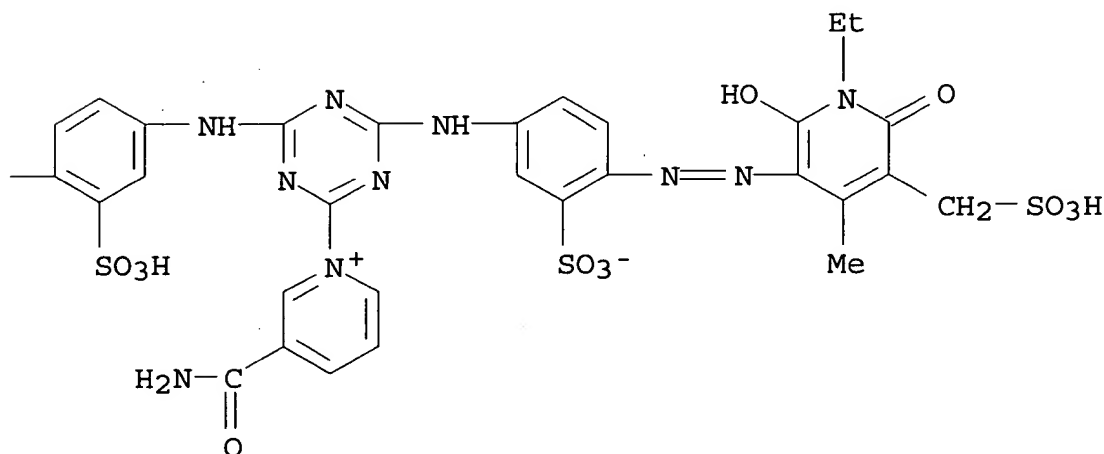
CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[[4-[[1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-5-(sulfomethyl)-3-

pyridinyl]azo]-3-sulfophenyl]amino]-1,3,5-triazine-4,2-diyl]]bis[3-(aminocarbonyl)-, bis(inner salt) (9CI) (CA INDEX NAME)

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PAGE 1-B



L12 ANSWER 52 OF 72 HCA COPYRIGHT 2002 ACS

105:143488 Processing silver halide photographic light-sensitive material. Ishikawa, Masao; Koboshi, Shigeharu; Kurematsu, Masayuki (Konishiroku Photo Industry Co., Ltd., Japan). U.S. US 4587195 A 19860506, 26 pp. Cont.-in-part of U.S. Ser. No. 529,726, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1985-721781 19850410. PRIORITY: JP 1982-161523 19820914; US 1983-529726 19830906.

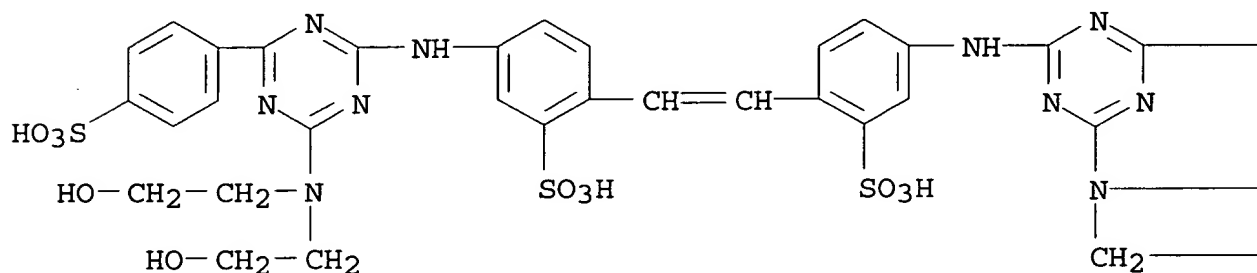
IT 92466-48-3 92466-53-0

(fluorescent brightener, color photog. developer contg. combinations of, for decreased staining)

RN 92466-48-3 HCA

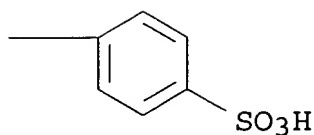
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

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●₄ Na

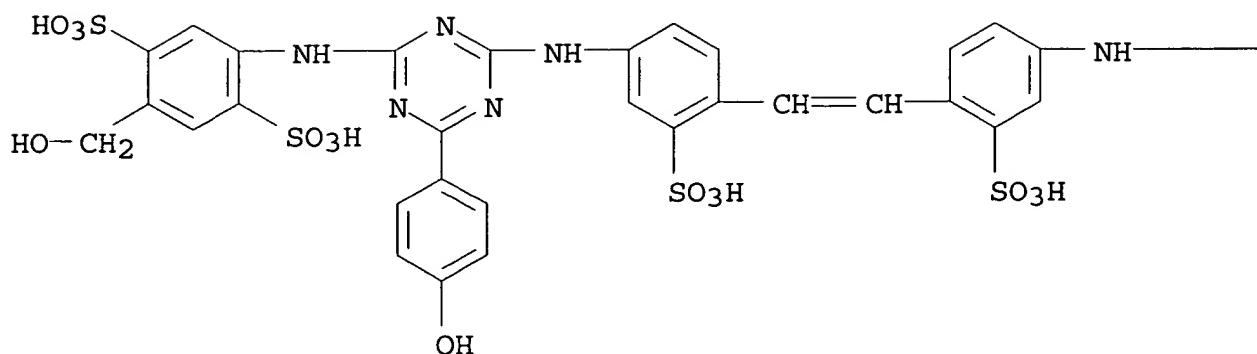
PAGE 1-B


$$-\text{CH}_2-\text{CH}_2-\text{OH}$$
$$\text{---CH}_2\text{---OH}$$

RN 92466-53-0 HCA

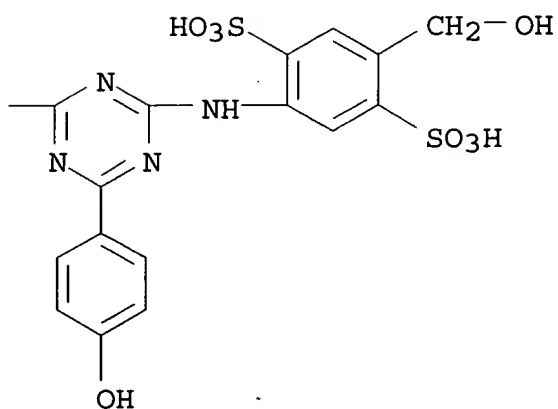
CN 1,4-Benzenedisulfonic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-(4-hydroxyphenyl)-1,3,5-triazine-4,2-diyl]imino]]bis[5-(hydroxymethyl)-, hexasodium salt (9CI) (CA INDEX NAME)

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● 6 Na

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L12 ANSWER 53 OF 72 HCA COPYRIGHT 2002 ACS

105:26121 Dyes for natural leather. Ajioka, Syohei; Tanaka, Toshio
 (Nippon Kayaku Co., Ltd., Japan). Ger. Offen. DE 3529294 A1
 19860227, 72 pp. (German). CODEN: GWXXBX. APPLICATION: DE
 1985-3529294 19850816. PRIORITY: JP 1984-171521 19840820.

IT 98214-55-2

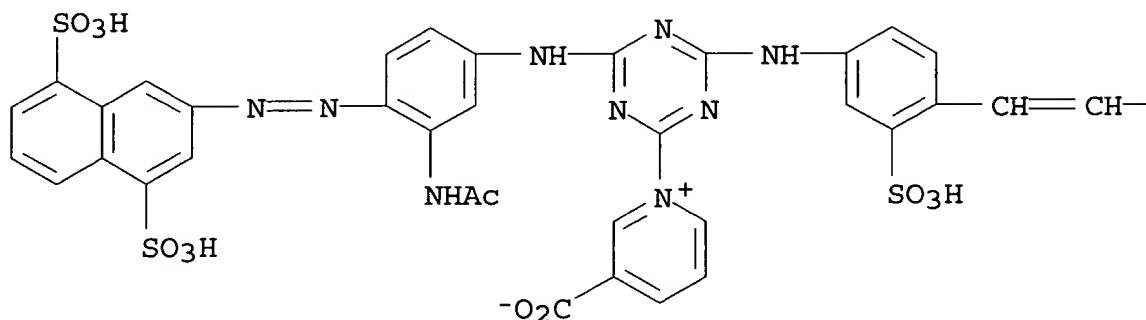
(dyes, reactive, for leather)

RN 98214-55-2 HCA

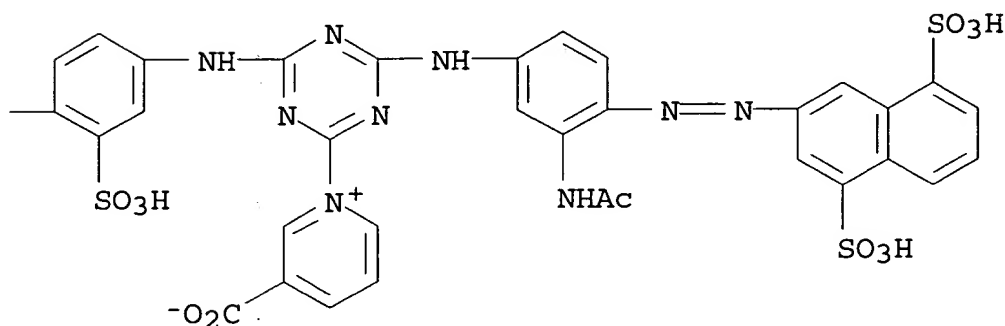
CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[3-(acetylamino)-4-[(4,8-disulfo-2-naphthalenyl)azo]phenyl]amino]-

1,3,5-triazine-4,2-diyl]]bis[3-carboxy-, bis(inner salt) (9CI) (CA INDEX NAME)

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L12 ANSWER 54 OF 72 HCA COPYRIGHT 2002 ACS

104:188153 Reactive dye compositions. Kaneya, Yutaka; Omura, Takashi; Takahashi, Sho; Miyamoto, Tetsuya; Takeshita, Akira; Harada, Naoki; Otake, Katsumasa (Sumitomo Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60208368 A2 19851019 Showa, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-66573 19840402.

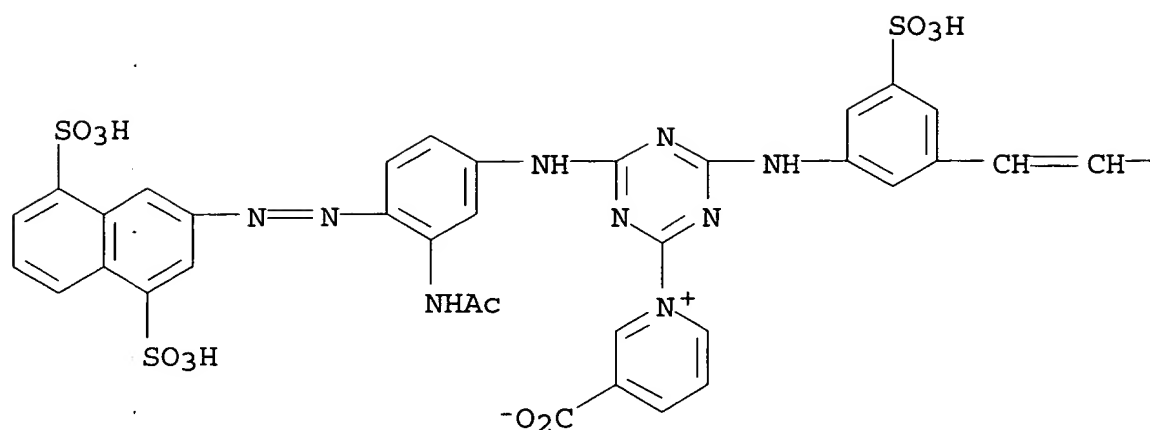
IT 101948-59-8

(reactive dyes, contg. buffers, for improved storage stability)

RN 101948-59-8 HCA

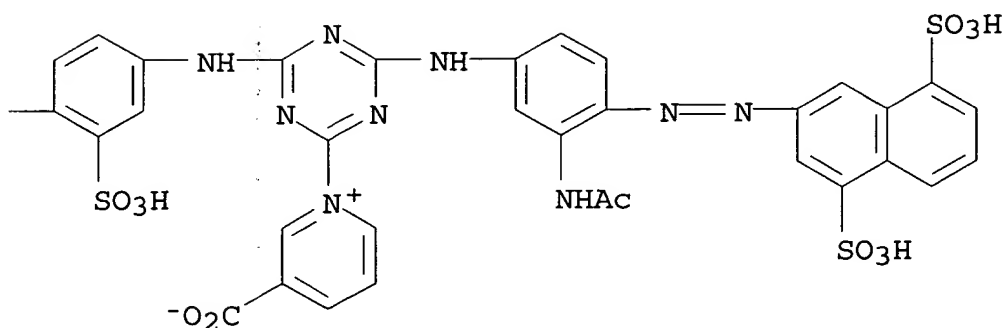
CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[[3-(acetylamino)-4-[(4,8-disulfo-2-naphthalenyl)azo]phenyl]amino]-1,3,5-triazine-4,2-diyl]]bis[3-carboxy-, bis(inner salt), hexasodium salt (9CI) (CA INDEX NAME)

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● 6 Na

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L12 ANSWER 55 OF 72 HCA COPYRIGHT 2002 ACS

103:179653 Reactive formazan dyes. (Nippon Kayaku Co., Ltd., Japan).

Jpn. Kokai Tokkyo Koho JP 60090264 A2 19850521 Showa, 15 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 1983-198367 19831025.

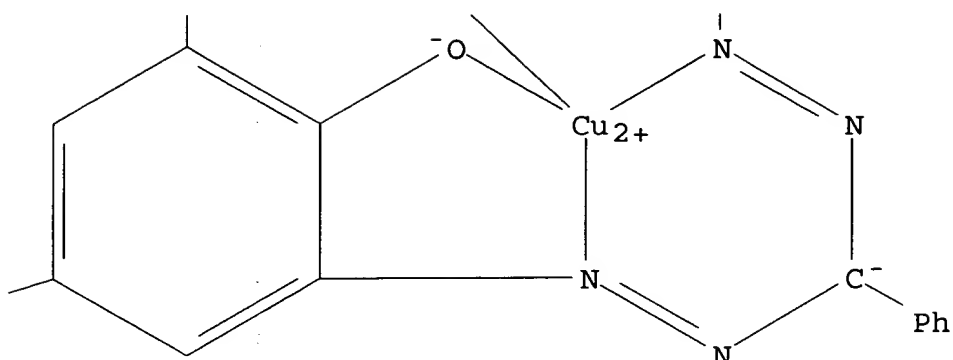
IT 98087-44-6 98166-95-1

(dye, blue, for cotton)

RN 98087-44-6 HCA

CN Cuprate(5-), [4-carboxy-1-[4-[[4-[2-[4-[[4-(4-carboxypyridinio)-6-[[3-[[[(2-carboxy-5-sulfophenyl)azo]phenylmethyl]azo]-2-hydroxy-5-sulfophenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]ethenyl]-3-sulfophenyl]amino]-6-(1-piperidinyl)-1,3,5-triazin-2-

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L12 ANSWER 56 OF 72 HCA COPYRIGHT 2002 ACS

103:143537 Water-based inks. (Ricoh Co., Ltd., Japan). Jpn. Kokai
Tokkyo Koho JP 60094477 A2 19850527 Showa, 5 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 1983-201031 19831028.

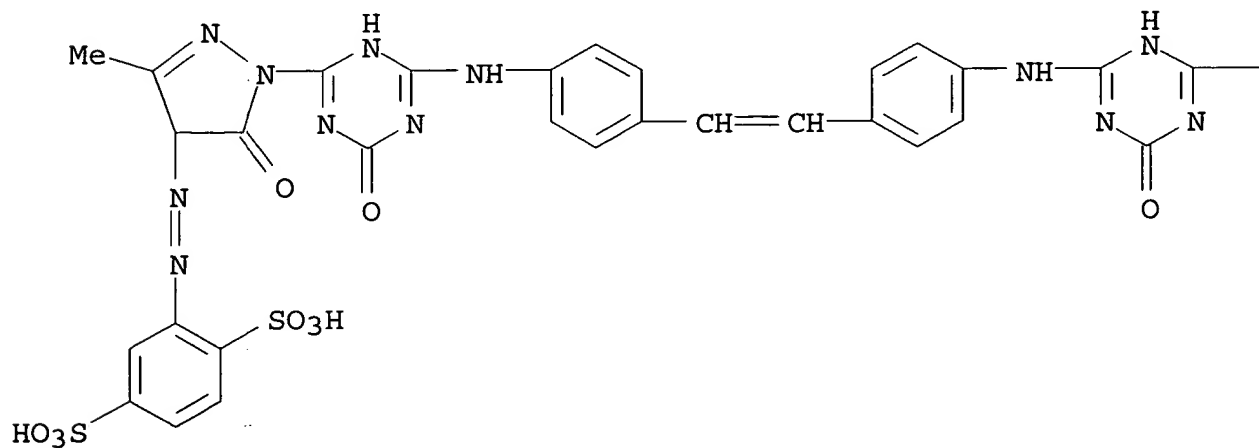
IT 98460-27-6 98460-28-7 98460-29-8

(jet-printing inks, water-thinned, water- and light-resistant)

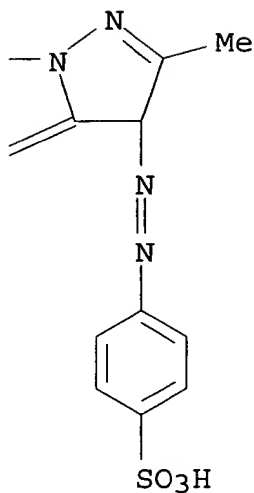
RN 98460-27-6 HCA

CN 1,4-Benzenedisulfonic acid, 2,2'-[1,2-ethenediylbis[4,1-
phenyleneimino(1,6-dihydro-6-oxo-1,3,5-triazine-4,2-diyl)(4,5-
dihydro-3-methyl-5-oxo-1H-pyrazole-1,4-diyl)azo]]bis-, tetrasodium
salt (9CI) (CA INDEX NAME)

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L12 ANSWER 57 OF 72 HCA COPYRIGHT 2002 ACS

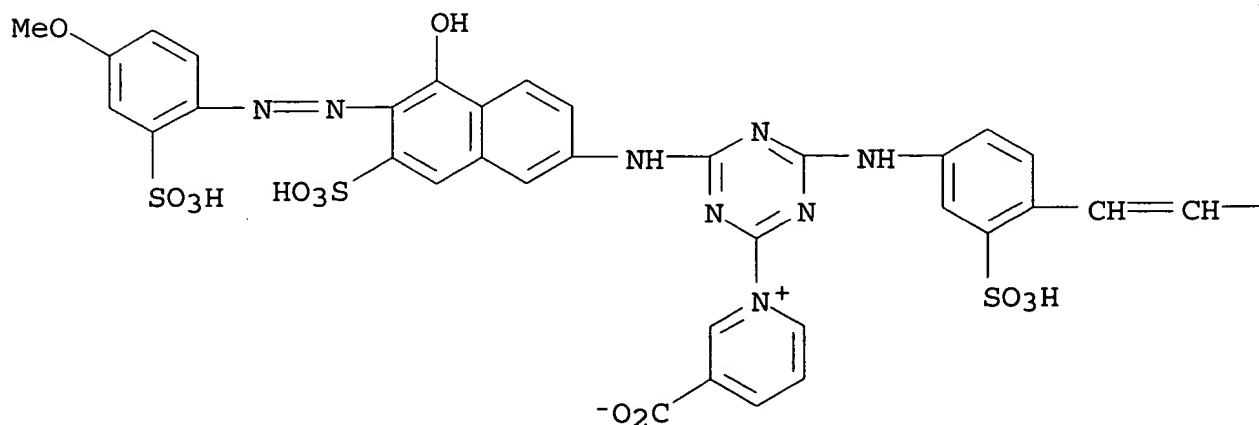
103:124991 Reactive disazo dyes. (Nippon Kayaku Co., Ltd., Japan). Jpn.
 Kokai Tokkyo Koho JP 60086169 A2 19850515 Showa, 10 pp. (Japanese).
 CODEN: JKXXAF. APPLICATION: JP 1983-194357 19831019.

IT 98213-76-4 98214-34-7
 (dye, for cotton, manuf. of)

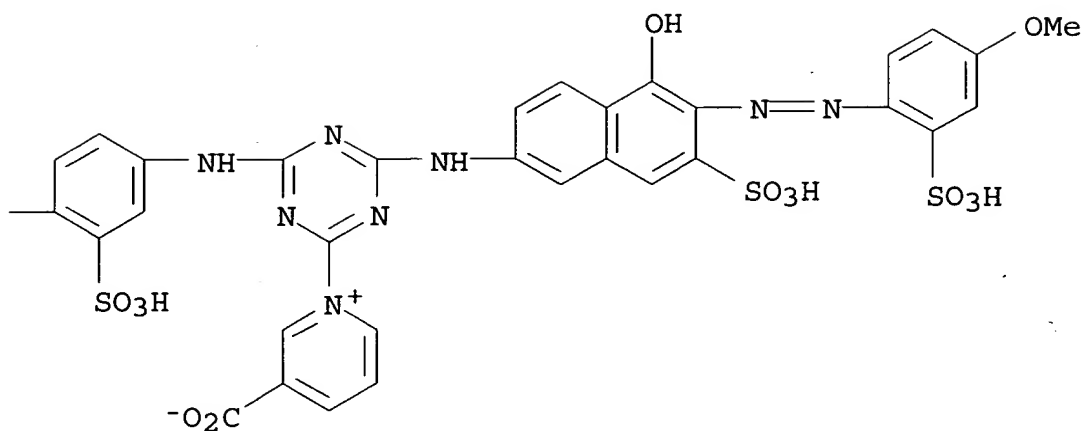
RN 98213-76-4 HCA

CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino]-6-
 [[5-hydroxy-6-[(4-methoxy-2-sulfo-phenyl)azo]-7-sulfo-2-
 naphthalenyl]amino]-1,3,5-triazine-4,2-diyl]bis[3-carboxy-,
 bis(inner salt) (9CI) (CA INDEX NAME)

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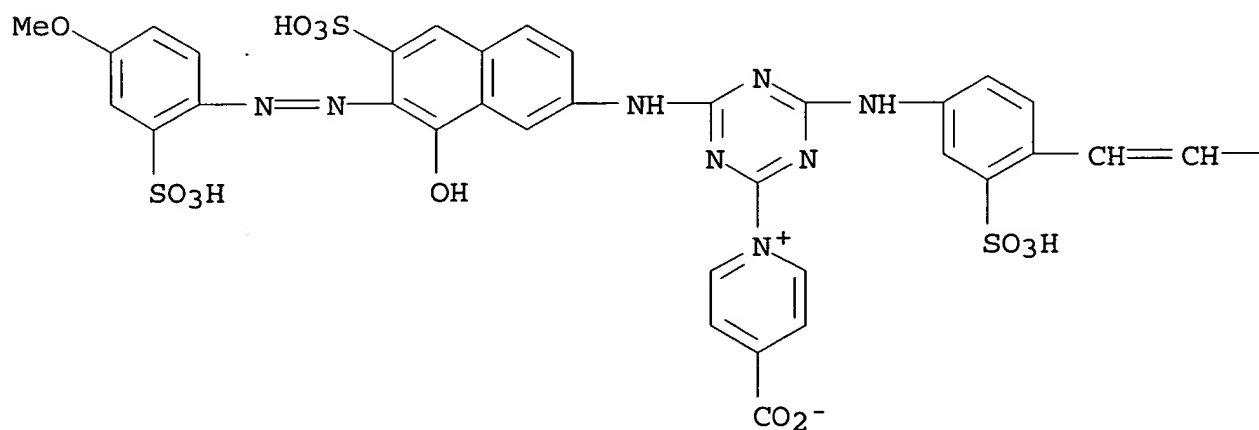


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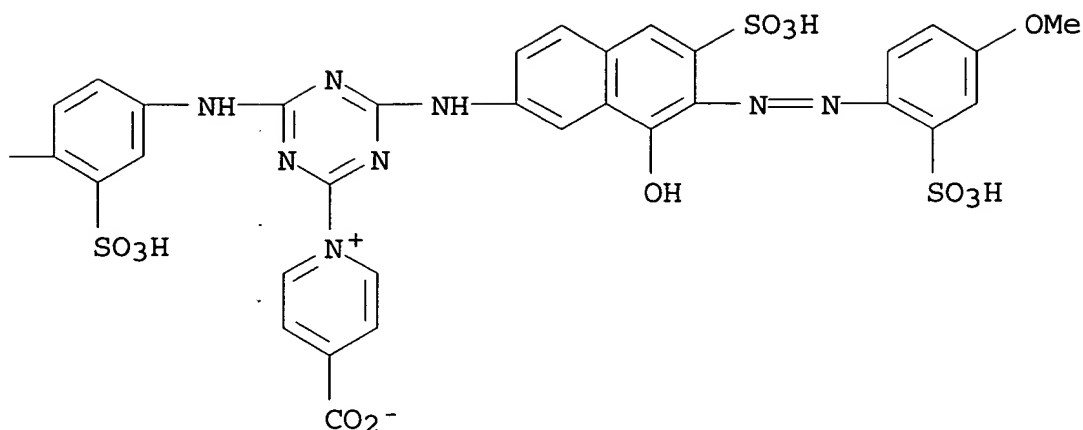


RN 98214-34-7 HCA
 CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[8-hydroxy-7-[(4-methoxy-2-sulfo-phenyl)azo]-6-sulfo-2-
 naphthalenyl]amino]-1,3,5-triazine-4,2-diyl]]]bis[4-carboxy-,
 bis(inner salt) (9CI) (CA INDEX NAME)

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L12 ANSWER 58 OF 72 HCA COPYRIGHT 2002 ACS

103:124990 Reactive azo dyes. (Nippon Kayaku Co., Ltd., Japan). Jpn.
 Kokai Tokkyo Koho JP 60086168 A2 19850515 Showa, 12 pp. (Japanese).
 CODEN: JKXXAF. APPLICATION: JP 1983-194356 19831019.

IT 98213-95-7 98214-14-3 98214-55-2

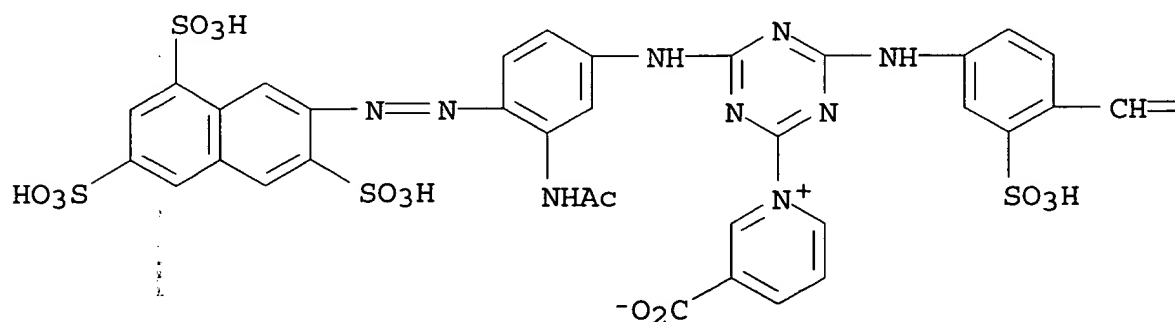
98242-31-0 98966-47-3

(dye, yellow, for cotton)

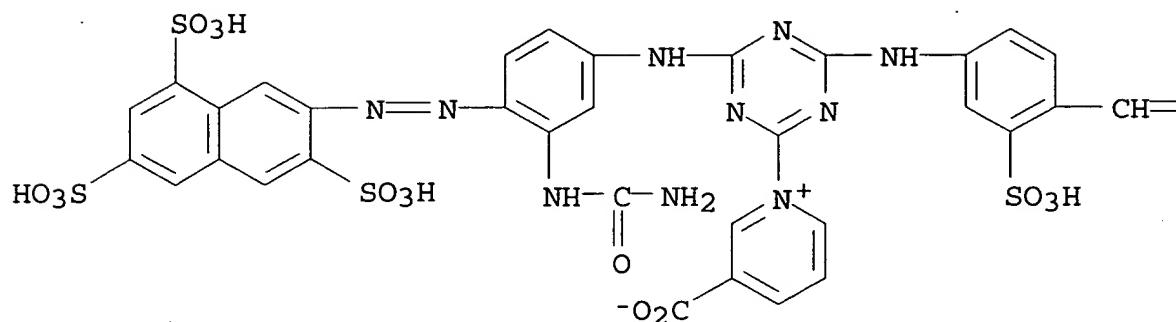
RN 98213-95-7 HCA

CN Pyridinium, 1,1'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[3-(acetylamino)-4-[(3,6,8-trisulfo-2-naphthalenyl)azo]phenyl]amino
]-1,3,5-triazine-4,2-diyl]]]bis[3-carboxy-, bis(inner salt) (9CI)
 (CA INDEX NAME)

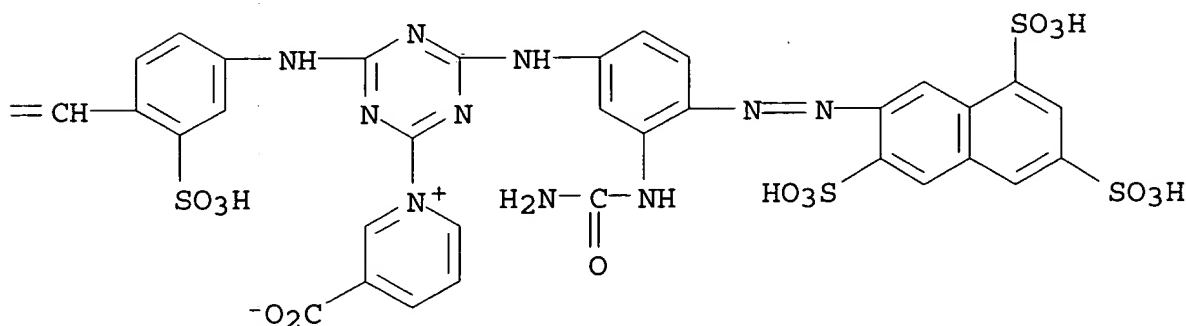
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L12 ANSWER 59 OF 72 HCA COPYRIGHT 2002 ACS

101:161156 Treatment and development of photosensitive photographic silver halide materials. Ishikawa, Masao; Koboshi, Shigeharu; Kurematsu, Masayuki (Konishiroku Photo Industry Co., Ltd., Japan). Ger. Offen. DE 3333227 A1 19840315, 36 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1983-3333227 19830914. PRIORITY: JP 1982-161523 19820914.

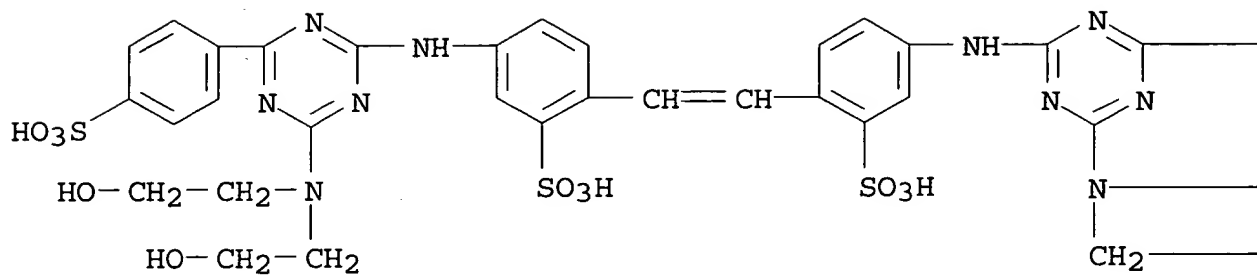
IT 92466-48-3 92466-53-0

(fluorescent brightener, color photog. developer contg., for decreased staining)

RN 92466-48-3 HCA

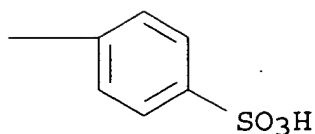
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulfophenyl)-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

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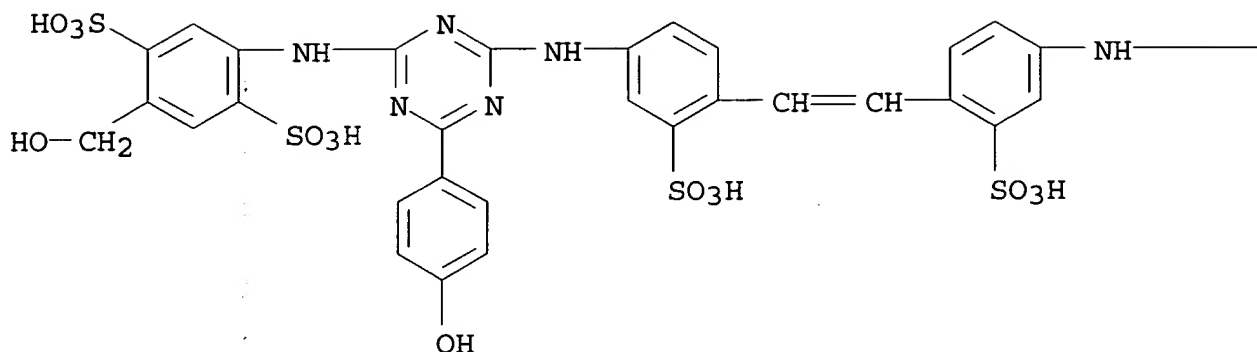
● 4 Na

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— CH₂— CH₂— OH— CH₂— OH

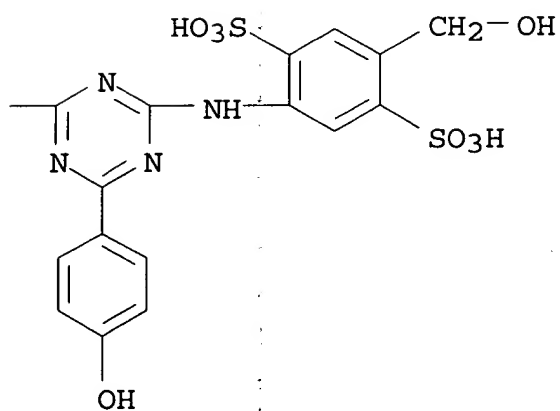
RN 92466-53-0 HCA
 CN 1,4-Benzenedisulfonic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-(4-hydroxyphenyl)-1,3,5-triazine-4,2-diyl]imino]]bis[5-(hydroxymethyl)-, hexasodium salt (9CI) (CA INDEX NAME)

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● 6 Na

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L12 ANSWER 60 OF 72 HCA COPYRIGHT 2002 ACS

99:196867 Superbleached kraft pulp. Ionescu, Ioana; Rascai, Maria Magdalena; Ghitan, Maria (Combinatul de Celuloza si Hirtie, Dej, Rom.). Rom. RO 76246 B 19810830, 3 pp. (Romanian). CODEN: RUXXA3. APPLICATION: RO 1978-92831 19780106.

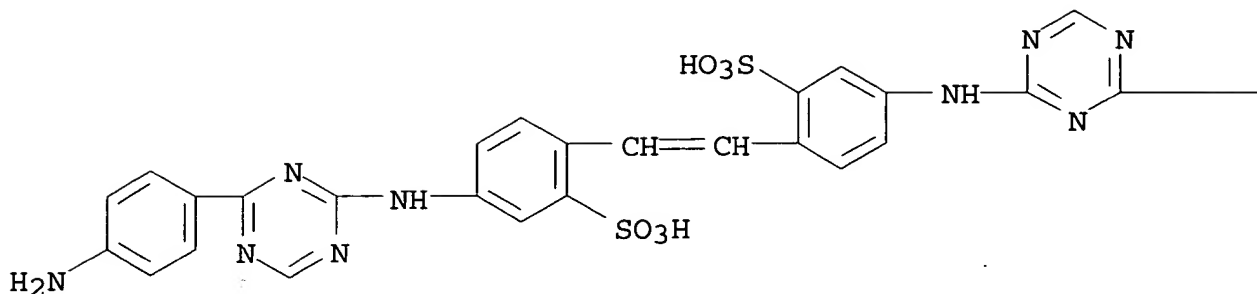
IT 87730-27-6

(in bleaching of kraft pulp)

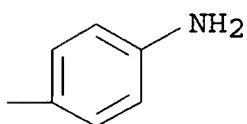
RN 87730-27-6 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-(4-aminophenyl)-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)

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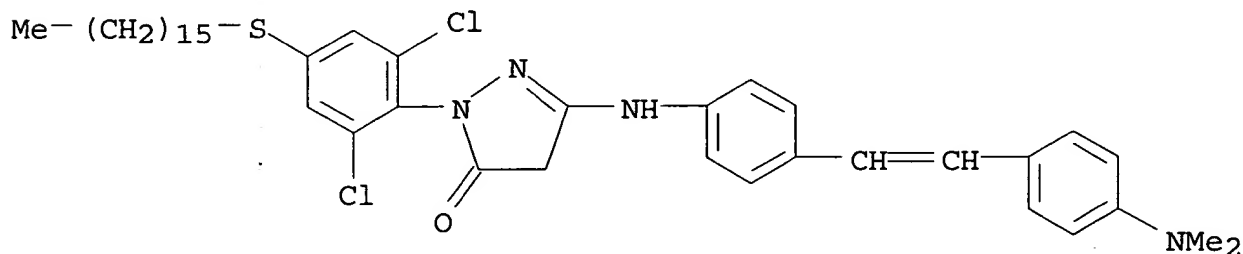
83:186244 Color couplers for magenta. Anon. (AGFA-Gevaert N. V., Mortsel, Belg.). Res. Discl., 134, 21-3 (English) 1975. CODEN: RSDSBB.

IT 57233-65-5

(photog. magenta color coupler)

RN 57233-65-5 HCA

CN 3H-Pyrazol-3-one, 2-[2,6-dichloro-4-(hexadecylthio)phenyl]-5-[[4-[2-[4-(dimethylamino)phenyl]ethenyl]phenyl]amino]-2,4-dihydro- (9CI)
(CA INDEX NAME)

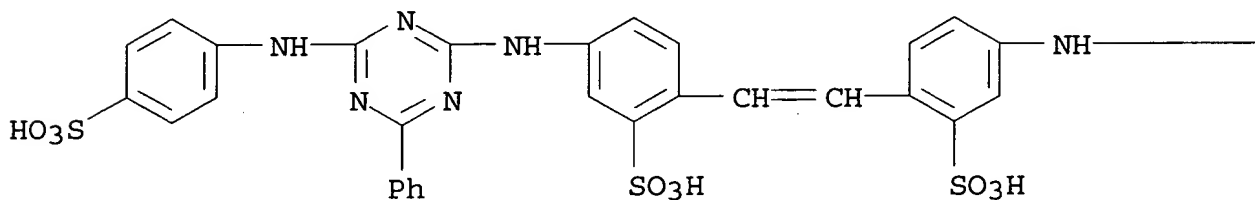


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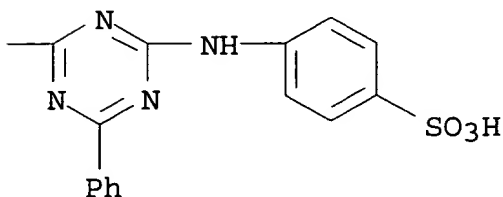
83:44718 Concentrated solutions of anionic dyes. Boehmke, Guenther; Theuer, Werner; Nonn, Konrad; Pape, Georg (Bayer A.-G., Ger.). Ger. Offen. DE 2341293 19750313, 17 pp. (German). CODEN: GWXXBX.
APPLICATION: DE 1973-2341293 19730816.

IT 55772-62-8
 (soln. of, storage-stable)
 RN 55772-62-8 HCA
 CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-phenyl-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)

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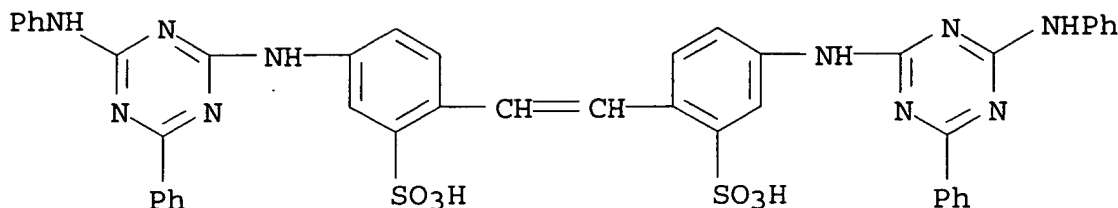


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L12 ANSWER 63 OF 72 HCA COPYRIGHT 2002 ACS
 77:41344 Supersensitizing dyes for silver halide photographic emulsions.
 Shiba, Keisuke; Hinata, Masanao; Sato, Akira; Misu, Hiroshi (Fuji
 Photo Film Co., Ltd.). U.S. US 3649288 19720314, 13 pp. (English).
 CODEN: USXXAM. APPLICATION: US 1970-56959 19700721.

IT 28791-62-0
 (photog. supersensitizers from cyanine dyes contg. ketomethylene
 nuclei and)
 RN 28791-62-0 HCA
 CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[[5-[6-phenyl-4-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L12 ANSWER 64 OF 72 HCA COPYRIGHT 2002 ACS

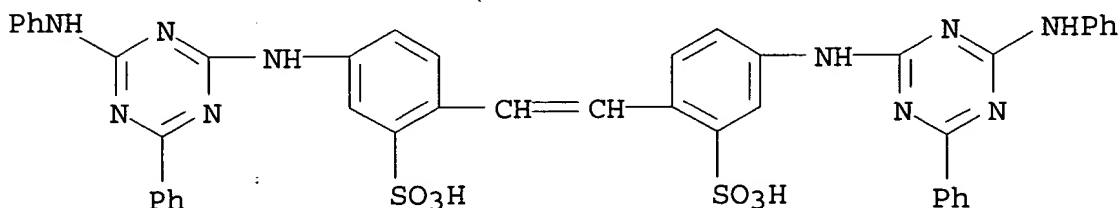
76:106427 Direct-positive photographic silver halide emulsions containing cyanine dye sensitizers. Shiba, Keisuke; Hinata, Masanao; Ohi, Reiichi; Kondo, Tokiharu; Sato, Akira; Yamasue, Koutaro (Fuji Photo Film Co., Ltd.). Ger. Offen. DE 2127346 19711202, 49 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1971-2127346 19710602.

IT 28791-62-0

(photographic supersensitizers from cyanine dyes and)

RN 28791-62-0 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[[5-[6-phenyl-4-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L12 ANSWER 65 OF 72 HCA COPYRIGHT 2002 ACS

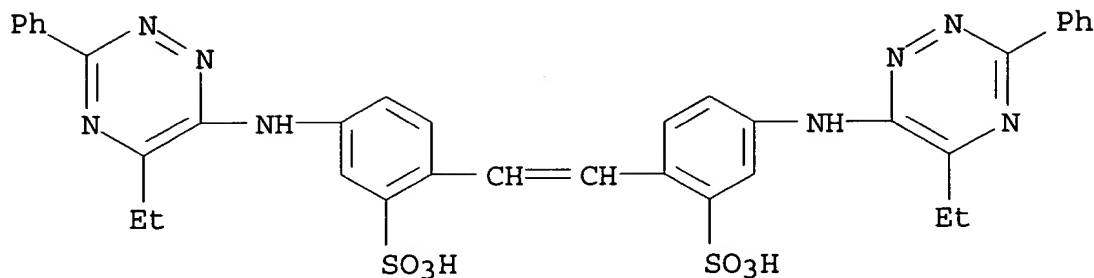
76:87451 Poly(vinylpyrrolidinone)-containing coating materials for paper. Huber, Otto; Weigl, Josef Ger. Offen. DE 2017276 19711021, 21 pp. (German). CODEN: GWXXBX. APPLICATION: DE 19700410.

IT 34321-14-7

(whitening agents, for paper coatings)

RN 34321-14-7 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[(5-ethyl-3-phenyl-1,2,4-triazin-6-yl)amino]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L12 ANSWER 66 OF 72 HCA COPYRIGHT 2002 ACS

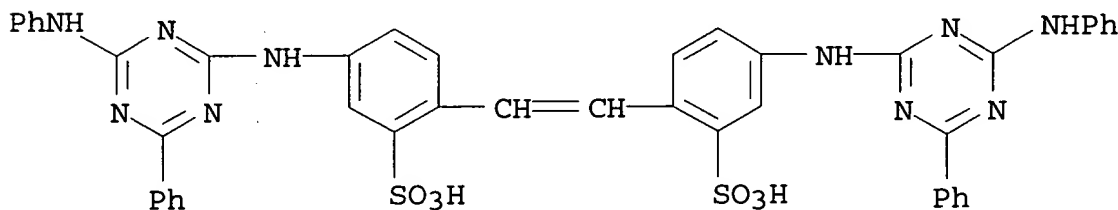
76:29522 Photographic silver halide emulsion for direct positive images. Shiba, Keisuke; Hinata, Masanao; Yamasue, Koutaro; Kondo, Tokiharu (Fuji Photo Film Co., Ltd.). Ger. Offen. DE 2113443 19710930, 28 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1971-2113443 19710319.

IT 28791-62-0

(direct-pos. photographic emulsions contg. phenylxanthone sensitizers and)

RN 28791-62-0 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[[5-[6-phenyl-4-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L12 ANSWER 67 OF 72 HCA COPYRIGHT 2002 ACS

75:37712 Fluorescent whitening agents. 4. Fluorescence of N-substituted aminostilbenes. Abe, Haruo; Jyokoji, Nobuaki; Inoue, Hisaaki; Asaumi, Eiji; Sekiguchi, Shizen; Matsui, Kohji (Fac. Technol., Gunma Univ., Kiryu, Japan). Kogyo Kagaku Zasshi, 74(4), 729-34 (Japanese) 1971. CODEN: KGKZA7.

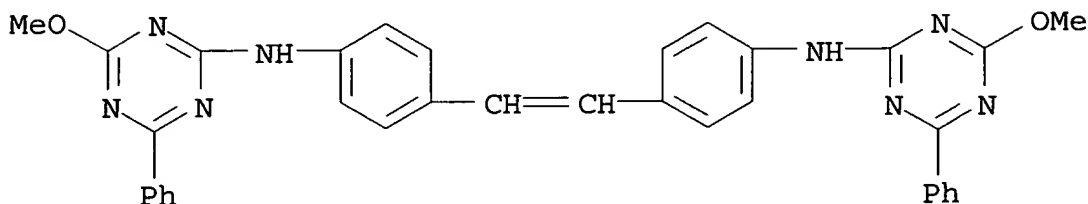
IT 33230-18-1P 33230-19-2P 33230-20-5P

33243-72-0P

(prepn. of)

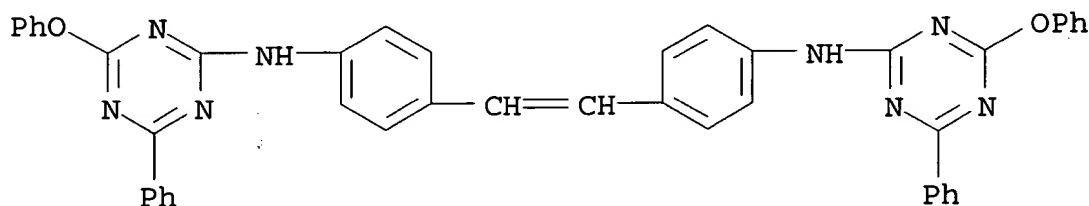
RN 33230-18-1 HCA

CN s-Triazine, 2,2'-[vinylenebis(p-phenyleneimino)]bis[4-methoxy-6-phenyl- (8CI) (CA INDEX NAME)]



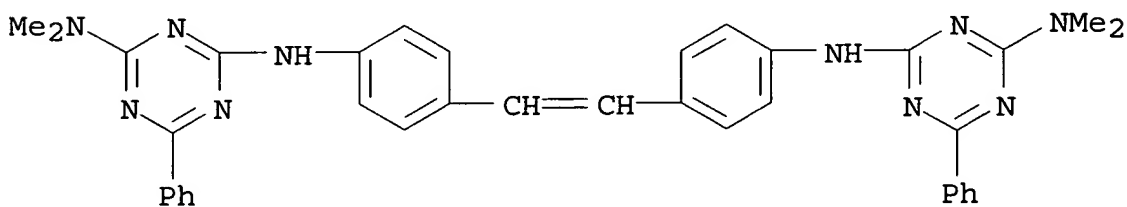
RN 33230-19-2 HCA

CN s-Triazine, 2,2'-[vinylenebis(p-phenyleneimino)]bis[4-phenoxy-6-phenyl- (8CI) (CA INDEX NAME)]



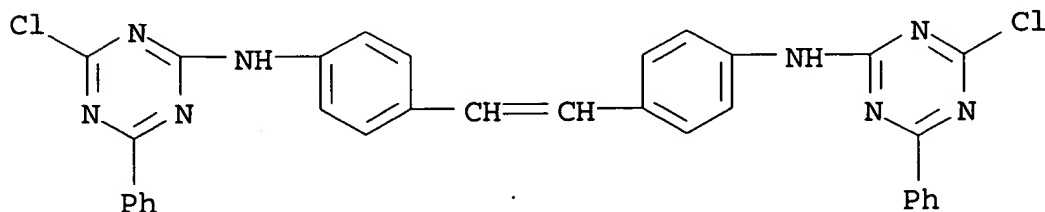
RN 33230-20-5 HCA

CN s-Triazine, 2,2'-[vinylenebis(p-phenyleneimino)]bis[4-(dimethylamino)-6-phenyl- (8CI) (CA INDEX NAME)]



RN 33243-72-0 HCA

CN s-Triazine, 2,2'-[vinylenebis(p-phenyleneimino)]bis[4-chloro-6-phenyl- (8CI) (CA INDEX NAME)]



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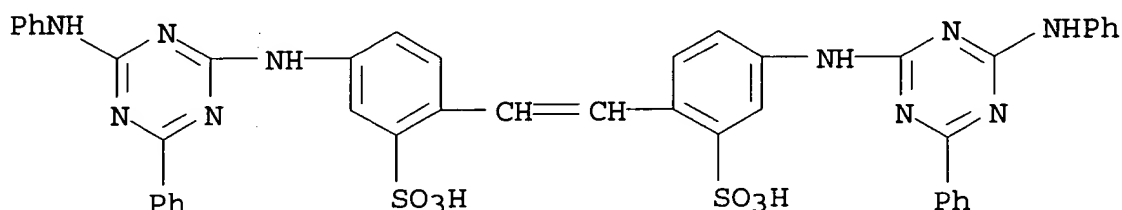
75:13534 Supersensitized photographic silver halide emulsions. Shiba, Keisuke; Hinata, Masanao; Sato, Akira; Misu, Hiroshi (Fuji Photo Film Co., Ltd.). Ger. Offen. DE 2036133 19710211, 41 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1970-2036133 19700721.

IT 28791-62-0

(photographic supersensitizers from polymethine dyes and)

RN 28791-62-0 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[[5-[6-phenyl-4-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

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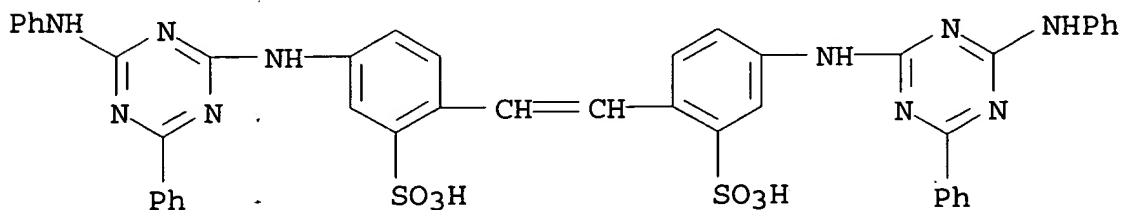
73:30652 Sensitized photographic emulsions. Sato, Akira; Misu, Hiroshi; Shiba, Keisuke; Hinata, Masanao (Fuji Photo Film Co., Ltd.). Fr. FR 1564517 19690425, 11 pp. (French). CODEN: FRXXAK. PRIORITY: JP 19661203.

IT 28791-62-0

(photographic supersensitizers from cyanine dyes and)

RN 28791-62-0 HCA

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[[5-[6-phenyl-4-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)



2 Na

L12 ANSWER 70 OF 72 HCA COPYRIGHT 2002 ACS

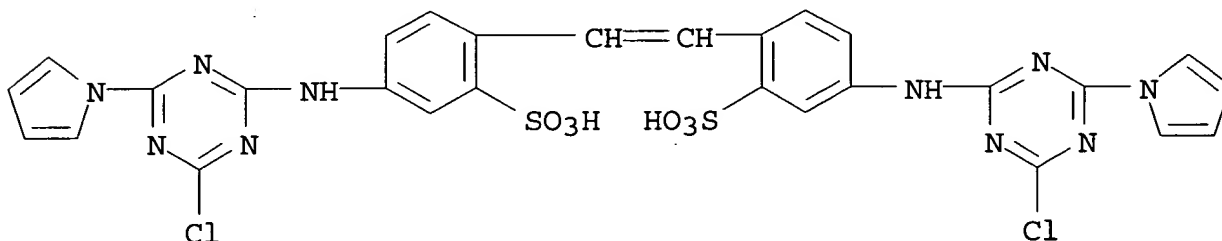
73:16308 Bis(triazinylamino)stilbene fluorescent whitening agents.
Kleinheidt, Ernst A.; Gold, Heinrich (Farbenfabriken Bayer A.-G.).
Brit. GB 1183854 19700311, 3 pp. (English). CODEN: BRXXAA.
APPLICATION: GB 19670714.

IT 27355-00-6P

(prepn. of)

RN 27355-00-6 HCA

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-chloro-6-(1H-pyrrol-1-yl)-s-triazin-2-yl]amino]-, disodium salt (8CI) (CA INDEX NAME)



● 2 Na

L12 ANSWER 71 OF 72 HCA COPYRIGHT 2002 ACS

68:14343 Built liquid detergent compositions. Almstead, James L.;
Greeb, Henry R.; Ohren, Tom H. (Procter and Gamble Co.). U.S. US
3351557 19671107, 6 pp. (English). CODEN: USXXAM. APPLICATION: US
19641006.

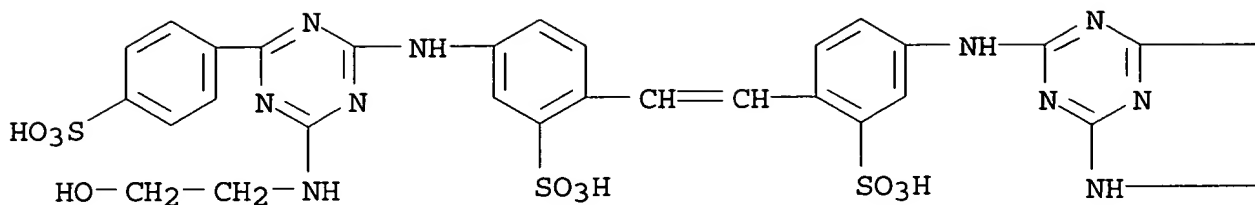
IT 20262-84-4

(detergents contg., stable oil-in-water emulsions of)

RN 20262-84-4 HCA

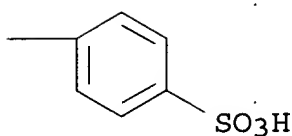
CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[(2-hydroxyethyl)amino]-6-(p-sulfophenyl)-s-triazin-2-yl]amino]-, tetrasodium salt (8CI) (CA INDEX NAME)

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● 4 Na

PAGE 1-B

—CH₂—CH₂—OH

L12 ANSWER 72 OF 72 HCA COPYRIGHT 2002 ACS

61:11777 Original Reference No. 61:1974g-h,1975a-f Metal complex dyes.

V. Preparation of 1:2-type metal complex dyes with bright shades.

Kimura, Mitsuo; Munechika, Kaichi; Kuroki, Nobuhiko; Konishi, Kenzo (Univ. Osaka, Prefect, Sakai, Japan). Kogyo Kagaku Zasshi, 67(2), 339-43 (Unavailable) 1964.

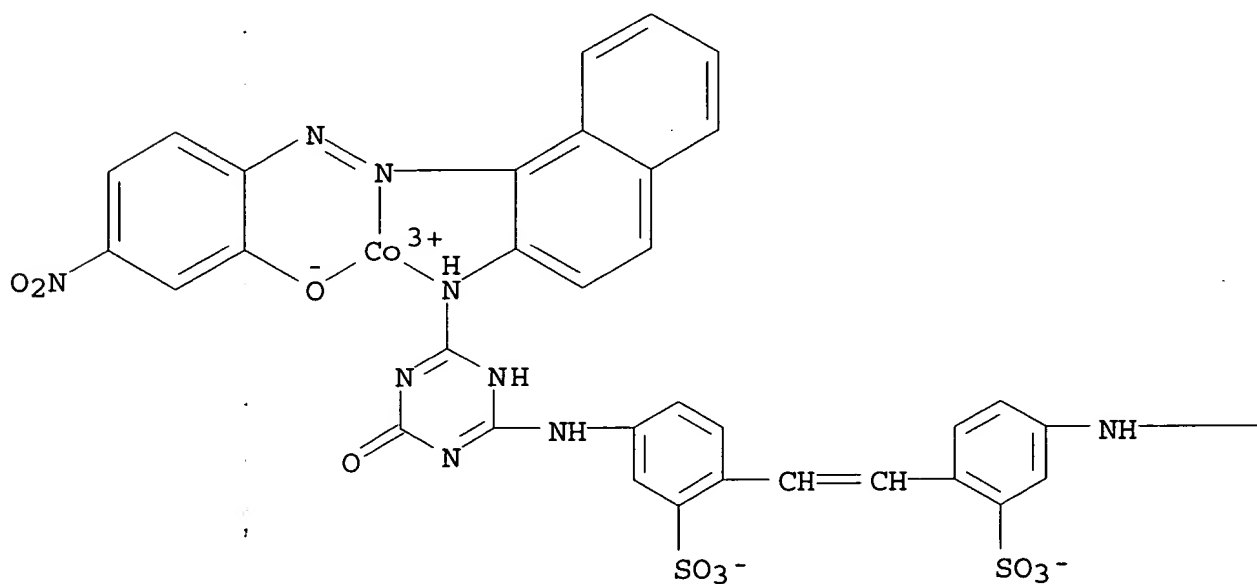
IT 100765-70-6, Hydrogen [dihydrogen 4,4'-bis[[4-hydroxy-6-[[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-stilbenedisulfonato(4-)]cobaltate(III)

100765-72-8, Hydrogen [dihydrogen 4,4'-bis[[4-hydroxy-6-[[1-[(o-hydroxyphenyl)azo]-2-naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-stilbenedisulfonato(4-)]cobaltate(III) 100765-73-9, Hydrogen [4,4'-bis[[4-hydroxy-6-[[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-stilbenedisulfonamidato(4-)]cobaltate(III) 100765-74-0, Hydrogen [4,4'-bis[[4-hydroxy-6-[[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-stilbenedisulfonamidato(4-)]chromate(III) 100765-75-1, Hydrogen [4,4'-bis[[4-hydroxy-6-[[1-[(o-hydroxyphenyl)azo]-2-naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-stilbenedisulfonamidato(4-)]chromate(III) 100765-76-2, Hydrogen [dihydrogen 4,4'-bis[[4-hydroxy-6-[[1-[(2-hydroxy-5-sulfamoylphenyl)azo]-2-naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-stilbenedisulfonato(4-)]chromate(III) 100765-77-3, Hydrogen [4,4'-bis[[4-hydroxy-6-[[1-[(o-hydroxyphenyl)azo]-2-

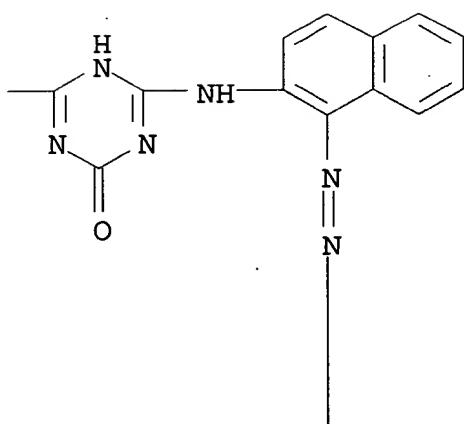
naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-stilbenedisulfonamidato(4-)
)]cobaltate(III) 100801-83-0, Hydrogen [dihydrogen
 4,4'-bis[[4-hydroxy-6-[[1-[(2-hydroxy-4-nitrophenyl)azo]-2-
 naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-stilbenedisulfonato(4-
)]chromate(III) 106439-64-9, Hydrogen [4,4'-bis[[4-hydroxy-
 6-[[1-[(2-hydroxy-5-sulfamoylphenyl)azo]-2-naphthyl]amino]-s-triazin-
 2-yl]amino]-2,2'-stilbenedisulfonamidato(4-)]cobaltate(III)
 106439-65-0, Hydrogen [4,4'-bis[[4-hydroxy-6-[[1-[(2-hydroxy-
 5-sulfamoylphenyl)azo]-2-naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-
 stilbenedisulfonamidato(4-)]chromate(III)
 (prepn. of)

RN 100765-70-6 HCA
 CN Hydrogen [dihydrogen 4,4'-bis[[4-hydroxy-6-[[1-[(2-hydroxy-4-
 nitrophenyl)azo]-2-naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-
 stilbenedisulfonato(4-)]cobaltate(III) (7CI) (CA INDEX NAME)

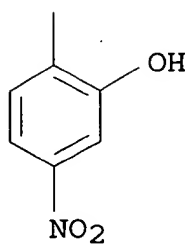
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PAGE 2-B



RN 100765-72-8 HCA
CN Hydrogen [dihydrogen 4,4'-bis[[4-hydroxy-6-[[1-[(o-hydroxyphenyl)azo]-2-naphthyl]amino]-s-triazin-2-yl]amino]-2,2'-stilbenedisulfonato(4-)]cobaltate(III) (7CI) (CA INDEX NAME)